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ORIGINAL ARTICLES.

SYMPHYSOTOMY¹ IN NORTH AND SOUTH AMERICA, WITH REMARKS UPON ITS GROWTH IN EUROPE.

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FOR 115 years after the introduction of Sigault's operation, in 1777, no one ever ventured to perform it in our Western Hemisphere; and it was not until the evidences in its favor were startling and beyond dispute that the initial step was taken, in Brooklyn, on September 30, 1892, by Professor Charles Jewett. This trial was quickly followed by others, and 4 operations were performed in the following month in the United States. In November the operation was performed in Rio Janeiro, Brazil; and in December, in Montreal, Canada. In the United States, Brazil, and Canada, 29 women have been operated upon in 9 months, divided as follows: In the United States, 25; Brazil, 2; and Canada, 2. In our own country the cases have been distributed as follows: In Philadelphia, 8; New York, 7; Brooklyn, 2; Cincinnati, 2; and 1 each in Baltimore; Paris, Illinois; Springfield, Illinois; Pittsburg; Portland, Oregon; and Boston. Rio Janeiro has a credit of 2 cases, and Montreal, Canada, has the same, all of the women and children having been saved. Dr. Anna E. Broomall, of Philadelphia, has operated upon 3 women; Dr. Barton Cooke Hirst, of the same city, upon 2; Dr. Egbert H. Grandin, of New York, upon 2; and Dr. Rodriguez dos Santos, of Rio Janeiro, upon 2.

Four women of the 25 operated upon in the United States have died, and 6 children have been lost, 3 of the latter having been still-born. Twenty-two children were born alive. Three of these died: 1 in 24 hours, from long head-pressure; 1 on the third day from meningeal hemorrhage; and 1 in 17 hours from injuries received in attempts to deliver.

Cases IX, XIII, XV, and XXIV, died. Case IX was in labor 25 hours, had a pulse of 150 when operated upon, and died of exhaustion in 17 hours. Case XIII died after 12 days, of septic peritonitis, believed to have been entirely puerperal. Case XV died in 72 hours of double pneumonia, which was believed to have arisen from exposure in riding to

the Maternity on a cold, rainy day. Case XXIV died on the eleventh day from sepsis, having its origin in the symphysis. The woman was a 12-paras, and was three days in labor before going to the hospital. The case closely resembled the twentieth of Dr. Pinard, of Paris, which was the first in his hands to prove fatal.

The Brazilian symphyseotomies were the work of one well known as an obstetric writer in South America. One operation was performed upon November 11, 1892, and the other on February 13, 1893. The subjects were young Brazilian primiparae, aged respectively nineteen and twenty-one years, who had contracted pelvis, but to what extent the letter of the operator to me does not state. In each case the vertex presented, and delivery was accomplished by the forceps, the child being a male. The mothers made good recoveries, had no subsequent disabilities, and they with their sons were alive and well on June 15, 1893, when Dr. dos Santos wrote, one child being then seven, and the other four months old.

Symphyseotomy may be said to have had three periods in its existence: (1) from 1777 to 1858 inclusive, after which there was no operation during seven years; (2) from 1865 to 1886; and (3) from 1886 to the present time. What most concerns us is the third period, in which the technique of the operation has been perfected; the number of operations vastly increased; and the mortality, under antiseptic management, largely diminished. As an evidence of its spread and of the growing confidence in which it is held, it is only necessary to state that there were twelve operations in Naples in 1891, and none in any other locality; that in 1892 there were more operations in Paris than in Naples; and that the average per month in all countries collectively, during the past eighteen months, has been more than twelve. Judging from the records of the first six months of the current year I am led to believe that there may be as many as two hundred women operated upon throughout the year; or more than will be delivered by the Conservative and Porro-Cesarean sections together. The Porro-Cesarean operation has been adopted by twenty-one countries in a period of sixteen years; while, already, that of pubic section, in a year and a half, has been tested in eleven countries. This sudden advance into popularity has been thought a *wild* one by many careful men, and there

¹ This mode of spelling is in deference to the wishes of Dr. Harris.

will, no doubt, be a reaction in time; but the method has a certain degree of merit, and the true measurement of it, as well as its legitimate death-rate, will in time be ascertained. Its mortality, except in Naples, has been much too high since January, 1892, and the proportion of children lost will make many obstetric surgeons cautious about adopting it in given cases. The death-rate at the present time is fully 12 per cent. for the women, and from 18 to 20 per cent. for the children. It has, besides, the serious objection that many primiparae delivered through its intermedium by the forceps have extensive lacerations of the vagina, vulva, and perineum, to be repaired. At one time, about three out of four women (1866-1885) were allowed to deliver themselves; but since January, 1886, a large majority of children have been extracted by the forceps or by version. The infantile mortality under both methods has been about the same, as nine were lost out of fifty, when only about one out of four was forcibly delivered, or 18 per cent. There were, however, at the same period, ten women lost out of fifty, instead of 6, as the present rate reads.

Compared with the Conservative Cesarean operations of the best European maternities, we find that symphyseotomy has a greater mortality, both for mothers and children, and the difference is very marked as to the latter. If a hundred Cesarean operations are performed in good season, and particularly if entered upon a few days before the period of gestation has been completed, there should be a hundred children delivered fully alive, if in this condition when the celiotomy is commenced, except in the cases in which the Esmarch elastic tube has been applied around the cervix, when asphyxia of the fetus may be looked for. Under the Porro-Cesarean operation, the fetal loss has been twenty-one per cent. in 443 delivered, and the deaths in 1890 reached one-fourth, and in 1891, one-third, *due mainly to delay and to the class of cases chosen to be operated on*; although in these two years, eighty-one women were saved out of ninety-five. The women lost were fourteen, against twenty-eight children.

So far, then, as the children are concerned, the highest mortality has been under the Porro Cesarean section; the second, under antiseptic symphyseotomy; and the lowest, under the Conservative Cesarean operation as performed in Leipzig, Dresden, and Vienna. That the Porro cases may also be so managed as to have but little fetal loss, is shown by the records of the Krankenhaus, of Vienna, and some of the noted Maternities of Germany, where cases are rarely operated upon *in extremis*.

Symphyseotomy, to be performed in the interest

of the fetus, ought not to be selected when the pelvis has a *very short conjugate*, as the head may prove to be too large in proportion to admit of a safe delivery. There is a temptation to combine induced labor, symphyseotomy, and version in cases in which the conjugata vera is below two and three-fourths inches, and some children have done exceptionally well under this management; but it is to be remembered that premature infants are difficult to raise, and that rhachitic mothers, as a rule, are neither wise nor wealthy. It is safer to direct our obstetricians not to be too venturesome, and to remember that, as a rule, the fetus in our country is nearly a pound heavier on the average than the fetus in Europe, where the minimum conjugate has been put down at sixty-seven millimeters (two and five-eighths inches). In one woman operated upon in this city the conjugata vera was exactly two and three-fourths inches; but the fetus, being a male weighing eight pounds two ounces, made a very narrow escape from death by asphyxia. Neither should this method of delivery be selected in a case such as presented itself recently in Philadelphia, in which a rhachitic woman was in labor two or three weeks before maturity, and in which the funis could be felt through the membranes in advance of the head. The anxiety of the parents for a living child here settled the question in favor of the Cesarean section, by means of which the fetus, whose pulse was also indicative of an extra risk, was saved. Having seen this rhachitic dwarf in her labor, I can testify to the interest felt in the question at issue, as the conjugata vera was two and three-fourths inches, and the fetus was believed to be small, which it proved to be.

It is a mistake to attempt to substitute symphyseotomy for the Cesarean section, on the ground that the former is the less dangerous to the woman. We must distinguish between the relative possibilities of the two operations, and their general results. The Cesarean operations of Leipzig, Dresden, Vienna, and Glasgow (under Cameron), as far as they have come to me, show that it is possible to save one hundred and thirty-two out of one hundred and forty-two women, giving a mortality of 7 per cent. Prof. Adolphe Pinard, of Paris, saved nineteen out of twenty women upon whom he had performed symphyseotomy. Italy, since January, 1886, has lost two women and five children under forty-six symphyseotomies; but no other country has been able to save anything like this proportion. Years of experience and misfortune have enabled her to do this, and to set such a hopeful example for imitation. But we must base our hopes of success upon much lower figures, and, upon a general record, which in the last seven and one-half years, in eleven countries, including Italy, gives, out of two hundred

and five cases, twenty-five maternal and thirty-seven infantile deaths.

The subosseous operation of Naples, which originated in Spain in 1780, and was reintroduced many years later by Galbiati, of Naples, is the one which has usually been performed in this country; cutting from within outward, and from below upward, in preference to the direct incision of Sigault, as still practised by Pinard and others of France. The knife of Galbiati has been remodelled, and now presents a longer body to the blade, and a shorter curved extremity, the whole edge being made to conform to the postero-inferior curve of the symphysis, as it is found in the majority of deformed pelvis. Should this joint be three inches deep, instead of an inch and a half, as it is sometimes found, the operator will be obliged to suit his instruments to the case. We believe that in this country it is better to preserve the tissues in front of the symphysis; and that we should aim to avoid the bloodvessels behind and in front of it, knowing that wounding them may lead to death by sepsis, as has happened in Paris and in Philadelphia. As Naples, and not Paris, has been the great center of success, we prefer to follow what Morisani teaches, after an abundant experience covering twenty-seven years. France has much to learn yet; as, since the revival of the operation, five women and thirteen children have been lost as a result of the first thirty-five pubic sections directly made; and this record includes the first eight successes of Pinard.

RENAL NEOPLASMS, WITH REPORT OF TWO CASES OF NEPHRECTOMY!

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NEOPLASMS, as they occur in the kidney, have been classified either histogenetically or histologically. Paul¹ adopts the former method, and divides them into those of congenital and adult origin. Those of congenital origin include sarcomata and dermoid tumors, and those of adult origin, cysts, sarcomata, adenomata, and carcinomata. In proof that sarcoma is of congenital origin he cites the case of a seven months' fetus in which the kidneys weighed twelve ounces, and the medullary portion of each was made up of nodules of a white new-growth, and the cortex was mottled with the same, yet there remained from twenty to thirty times the normal amount of renal tissue. These nodules consisted mostly of round cells, but in many parts they arranged themselves as though attempting some higher evolution. This he prefers to call a round-celled sarcoma. He also refers to another case of an eight months' fetus, described by Osler as one of adeno-sarcoma, and

confirmed by himself. Cohnheim classes the sarcomata in children amongst the teratomata, and so does Dohrn.² Histologically, the new growths are divided into benign and malignant, and the following is the classification given by Newman:

A. BENIGN: 1. Fibromata. 2. Lipomata. 3. Hematangiomata. 4. Adenomata. 5. Papillomata.

B. MALIGNANT: 1. Carcinomata. 2. Lympho-adenomata. 3. Sarcomata.

A. BENIGN.—

1. *Fibromata.* These are of comparatively rare occurrence. Out of seventy-four nephrectomies tabulated by Newman, five were for fibromata. These tumors sometimes reach a great size. Thomas removed one originating from the capsule of the kidney weighing ten and a half pounds; and Bruntzel, one weighing twenty-seven and a half pounds. Both patients made a good recovery. These were simple fibromata. Billroth removed a fibro-myoma, weighing forty pounds, with a fatal result. Fibro-cystoma and fibro-lipoma have also been met with.

2. *Lipomata.* These are still more rare than the foregoing. Ebstein records a case in which one kidney consisted wholly of lipomatous tissue. Spencer Wells³ removed two fibro-lipomata, one from either kidney, weighing sixteen and a half pounds and fourteen and a half pounds, respectively. With that originating from the left kidney was removed one calix and papilla. Mr. Eve, in preparing the specimens, gave it as his opinion that their origin was from the circumrenal connective tissue; hence these cannot be regarded as true tumors of the kidney.

3. *Hematangiomata.* These occur as small nodules situated in the cortex and usually do not exceed in size that of a bean, and do not call for operative interference.

4. *Adenomata.* These occur in two forms, the papillary and alveolar: the former originate in the medulla and consist of tubules and acini into which the papillæ project, and are lined with cylindrical epithelium; the latter originate in the cortex, and are formed of dilated tubules lined with epithelium similar to that found in the convoluted tubes. They rarely attain any great size. Czerny operated upon a child of eleven months, with a fatal result; Schönborn successfully in a child of two years; Albert, in a woman of forty-one, and the tumor was as large as a child's head; Weir,⁴ in a man of thirty-five, the kidney weighing twenty-one ounces; and Keyes,⁵ in a gentleman of forty-nine. In the last case almost all traces of normal renal tissue were destroyed and the kidney appeared to be composed of an enormous number of nodules separated by newly-formed connective tissue. In Weir's case the new-growth was separated from true renal tissue by a dis-

¹ Read before Wisconsin State Medical Society, May 4, 1893.

tinct capsule. Walter Edmunds⁶ reported to the Pathological Society of London a similar case, in which a globular tumor, two and one-half inches in diameter, projected from the anterior surface of the kidney, and extended internally into one of the calices. It consisted of cysts of various sizes, lined by cubical and columnar epithelium, and was enclosed in a distinct capsule. The kidney-tissue was healthy. Edmunds agrees with Shattuck in the belief that such growths are due to inclusion of remnants of the Wolffian body, because of the existence of a distinct limiting capsule.

5. *Papillomata.* These grow from the mucous membrane of the pelvis, are identical in structure with those found in the bladder, and the principal symptom present is hematuria. Jones⁷ records the case of a patient who, while walking, was suddenly seized with faintness and an urgent desire to urinate. The fluid evacuated consisted of almost pure blood. Eighteen months after the first attack the kidney was explored, and a papilloma was found in the pelvis, and was removed. The hematuria recurred in four months, and eight months after the first operation nephrectomy was performed, and a papilloma, the size of a hen's egg, was found occupying the pelvis. Papillomata rarely give rise to any appreciable renal enlargement unless hydronephrosis is produced by a blocking of the ureter. Knowsley Thornton⁸ met with such a case in a woman thirty-two years of age, who for twenty-nine years had suffered from discomfort and pain in the right renal region. On removal by abdominal nephrectomy he found a hydronephrotic kidney containing two pints of cloudy urine, several calculi, and the ureter blocked by a papilloma.

B. MALIGNANT.—Primary malignant growths of the kidney are unilateral and form tumors of considerable size; the secondary are bilateral and do not give rise to any considerable enlargement of the organ.

1. *Carcinomata.* The medullary type is the most common, although all transitions from scirrhouss to medullary are met with. It occurs as a nodular growth or a diffuse infiltration of the whole kidney. In the former, the shape of the kidney may be greatly changed, while in the latter its shape is retained. The origin is generally in the cortex, the parts first affected being the epithelium of the tubules; later the connective tissues become infiltrated. In the diffuse form are to be found many cavities of varying size, filled with broken-down tissue mixed with blood. This condition is likely to be misleading because of an indistinct sense of fluctuation being present. When the pelvis becomes involved, ulceration follows, and parts of the tumor separate and block the ureter. The capsule becomes thickened and very vascular. Adhesions to sur-

rounding organs do not take place until late. When formed, the disease may extend to the overlying colon, into which the new-growth may even ulcerate. Secondary deposits form in distant organs, the retro-peritoneal glands, the liver, and the lungs. Rarely is the lower urinary tract involved in secondary infection. Dickinson explains this on the ground that infection takes place through the lymphatics, in which the flow from the kidneys is away from the pelvic organs.

2. *Lymphadenoma* occurs in the kidney as a part of a general disease; it is a metastasis, the primary growth being in the lymphatic system, and consequently does not come within the sphere of the surgeon.

3. *Sarcomata.* Many of these are doubtless congenital. Of forty cases collected by Newman, thirty-three occurred under the tenth year, and of these thirty-three, twenty-six under the fifth year. Paul and Osler, as already referred to, have found them in the fetus. All varieties are found in the kidney. Their most frequent site of origin is in the cortex. At first the growth is encapsulated, but with cellular proliferation the capsule gives way, cell-elements find their way into the capillaries, and the disease becomes diffused throughout the entire organ. The richer the new-growth is in cellular elements the more rapid is this dissemination. Finally, the contents of the renal vein become infected and secondary deposits occur in the lungs.

THE SYMPTOMS are often very obscure. Renal symptoms may be wholly absent, the first thing to arrest attention being the discovery of a tumor in the lumbar region; or there may be anoxeria, with recurring attacks of vomiting or diarrhea, or even jaundice. Pain is not characteristic. It is not acute, but rather a feeling of discomfort, or of a dull, aching character, confined to the loin, seldom extending along the course of the ureter as in calculus, and uninfluenced by movement. Hematuria may be the first symptom and of such a degree as to produce syncope, as in a case recorded by Jones. It occurs when the growth has reached and ulcerated into the pelvis, and is hence absent in a great many instances. According to Roberts, it is absent in half the cases of malignant disease. When present it is continuous and independent of exertion, thus distinguishing it from the intermittent form present in renal calculus. It may also be absent for long periods of time.

When hematuria is the only symptom, the question presents itself: From which kidney does the hemorrhage originate? To decide this absolutely it is necessary to obtain samples of urine from either kidney. This has been accomplished in two ways: direct catheterization of the ureters, or compression of one ureter while the other remains

patent. Simon dilated the female urethra, and with the finger in the bladder he guided the catheter to the urethral opening. Pawlik accomplished the same without urethral dilatation by following certain landmarks in the anterior vaginal wall.

Newman introduced an electric lamp into the bladder, and with the aid of the eye introduced a specially devised catheter. Silbermann compressed one ureter with a rubber bulb filled with mercury; Tuchmann, by an instrument resembling a lithotrite, and Polk, by a catheter in the bladder and a finger in the rectum. Other devices have also been used. All have been reported successful, but none has come into general use, probably from the difficulties encountered in their employment.

The most important point, however, is the discovery of a tumor in the renal region. When of considerable size it can be easily made out by palpation, one hand being placed in front and the other in the lumbar region for counter-pressure. The tumor will be felt projecting forward and downward between the margin of the last rib and the crest of the ilium, smooth or irregular in outline, with rounded margins, and retaining more or less of the shape of the kidney; movable or not on deep inspiration, according to the presence or absence of adhesions, downward movement being most marked on the right side from the close relation of the organ to the liver. When of smaller size, Guyon's "renal ballottement" or Israel's method will be necessary. The former is practised with the patient recumbent. The operator stands on the side to be examined, and with the corresponding hand makes deliberate and gentle pressure at a point one inch below the junction of the tenth rib with its costal cartilage, and with the other hand pushed under the lumbar region, makes a series of gentle but short, regular, and quickly successive blows, by means of which the kidney is projected in a jerking manner toward the anterior abdominal wall. By the method of Israel,⁹ the patient is placed in the lateral position with a pillow under the loin, the head-end of the table being elevated. Examination of the left kidney is made, with the patient on the right side, the operator standing upon the right side and placing the right hand upon the lumbar region, the left resting upon the anterior abdominal wall. During respiratory movements the finger-tips glide over the lower edge of the kidney. In the normally-attached kidney only the lower third, or at most the lower half of the organ can be palpated, and the rounded edge of the kidney can be felt and distinguished from the liver and spleen. These latter organs may be isolated and their edges lifted away from the kidney with the finger-tips. By means of this method Israel¹⁰ diagnosticated in a boy, fourteen years of age, the existence of a normal kidney upon the one side and

a sarcoma upon the other; in an emaciated woman with persistent hematuria, a calculus in the kidney was found and the diagnosis was confirmed by subsequent operation; and also a case of carcinoma in a patient twenty-one years of age, in which, with the finger pressed below the anterior junction of the eleventh and twelfth ribs, a flat prominence the size of a dime could be felt. In one month this had increased to the size of half a cherry; the kidney was exposed and exploratory puncture of the tumor proved it to be malignant. Nephrectomy was performed. The kidney was of normal size and microscopic examination confirmed the diagnosis, it being a carcinoma very rich in cells.

The retro-peritoneal location of the tumor is demonstrated by resonance on percussion anteriorly, from the interposition of the colon between the growth and the anterior abdominal wall. If the colon be empty, it will be felt as a rounded cord running over the front of the tumor. To exclude this, rectal insufflation with air should be used. If the colon is anterior, as it becomes distended, the percussion-sound will become resonant. When the tumor is of very large size the colon may be displaced inward; then there will be dulness instead of resonance, and a diagnosis must be reached by exclusion.

DIAGNOSIS. — New-growths have to be distinguished from other forms of renal disease, affections of the peri-nephric tissue and supra-renal capsules, tumors of hepatic, splenic, or ovarian origin; tumors of the mesentery and pancreas, and fecal impaction. Before proceeding to an examination in any case it is advisable to administer a brisk cathartic. This will exclude one possible error of diagnosis, fecal impaction, and the empty condition of the intestine will render palpation more easy and accurate. Renal calculus is the most likely of renal affections to be confounded with new-growths. Both have the common symptom, hematuria. In calculus it is increased by exertion and diminished by rest. No such rule applies to neoplasms; it is often the reverse; the hematuria is "profuse, spontaneous, and recurrent" (Roberts), and independent of all external influences. Pain in calculus is more acute, boring, gnawing, or paroxysmal in character, and more diffuse, extending along the course of the ureter to the inner side of the thigh and testicle. Movement increases it. Pressure of the affected kidney is also more painful. In hydronephrotic and hydatid tumors fluctuation is more distinct than in the rapidly growing, malignant, and fibro-cystic varieties. Exploratory puncture will aid in the diagnosis. Careful examination and observation of the urine will exclude suppurative disease of the pelvis. From new-formations of the supra-renal capsule and peri-nephric tissue, or hyperplasia of the latter, a diagnosis is impossible. Horn and Bell and John-

ston¹¹ report three cases of adenoma of the supra-renal capsule; in one the kidney was not involved, but in the other two the growth had extended into the kidney. Knowsley Thornton, at the Clinical Society of London,¹² in 1890, reported the case of a woman, thirty-six years of age, with an abdominal tumor, which had been diagnosed by Keith as an enlarged spleen, twelve months prior to its removal by abdominal section. After removal it was found to be a sarcoma of the supra-renal capsule, weighing twenty pounds, with a healthy kidney attached to its lower border.

Von Eiselberg¹³ records a case of fibro-lipoma of the peri-nephric fat, the size of a child's head, firm and non-sensitive, removed along with the kidney. Harris¹⁴ met with two cases in which hematuria was the only symptom. He explored the kidney, and found only thickening and adhesions of the peri-nephric tissue. The latter were broken up, and the hematuria disappeared.

Enlargements of hepatic and splenic origin are characterized by the absence of resonance anteriorly, from their close relation to the abdominal wall. On firm pressure the fingers can generally be pushed under the sharp margin of the liver, and in renal growths a space can be made out between the inner margin and the edge of the ribs. Movement with respiration has been considered diagnostic of new-growths in connection with the liver. This cannot be relied upon, because, on the right side at least, renal tumors of any size have this movement communicated to them through downward pressure of the liver. Splenic enlargements are more mobile, the greatest movement in renal tumors being in an antero-posterior direction (Hochsinger), and the notched margin of the organ can generally be made out. Renal tumors, when they extend inward to the middle line, and down toward the iliac fossa, have been most frequently mistaken for ovarian growths. Unless the bowel be adherent anteriorly, ovarian tumors are dull on percussion. Their intra-pelvic connection, or partial location within the pelvis, will exclude a renal origin, and resonance in the lumbar region is their characteristic.

Tumors of renal origin, however, at times possess all the diagnostic features of ovarian disease, as the following case, reported by Claus¹⁵ at the German Congress of Surgeons, in 1885, illustrates:

"A woman, forty-six years of age, was healthy up to four years previously, when she noticed 'a rolling' in the abdomen, increased by deep inspiration and rapid movements. The abdomen grew larger, but for a considerable time there was no pain. A fluctuating tumor was felt in the middle of the abdomen. The urine was normal. The uterus was retroverted; only in front of this a pedicle could be felt. The diagnosis was monocular ovarian cyst. Celiotomy was performed, and the cyst was found

to contain dark bloody fluid, and was connected with the kidney. Examination showed the tumor to be a fibroma, with few cells, but abundant fibers. It had developed between the medullary and cortical substance of the kidney, pushing the two apart. The cyst-wall was formed by the distended kidney-capsule."

Tumors of the pancreas and mesentery are retro-peritoneal. They are more centrally located, and their non-connection with the renal region can be shown by "Guyon's ballottement." In tumors of the pancreas, steatorrhea and the presence of sugar in the urine would aid in the diagnosis. Mesenteric tumors are very freely movable, as compared with renal tumors.

Failing to arrive at a satisfactory diagnosis, an exploratory incision for diagnostic purposes (which can be utilized as curative) can be resorted to. Either the lumbar or the transperitoneal route may be adopted. When the former, the kidney can be withdrawn in the loin, freely incised, examined by the finger from within and without, and again sutured without fear of any serious structural change. That such wounds of the kidney readily heal has been demonstrated experimentally by Schachner,¹⁶ and confirmed by Morris¹⁷ in the human subject, in the case of a man in whom the surgeon made an exploratory nephrectomy for calculus, and found none. The patient died a month later from another cause, and at the post-mortem the incision in the kidney was found represented by a linear scar extending through the renal cortex to the pelvis.

Hemorrhage after incision by the knife is rather profuse. To avoid this an opening may be made through the cortex with the Paquelin cautery. This is objectionable because it necessitates a temporary renal fistula when the conditions are such as not to demand a nephrectomy.

TREATMENT.—When the surgeon is reasonably satisfied of the existence of a new-growth, either benign or malignant, he is justified in making an exploratory incision, because it is impossible from the symptoms to differentiate the character, and as the majority are malignant, the element of success in the operative treatment depends upon early removal. In children under ten years of age the weight of opinion is against operative interference. Goodlee¹⁸ believes that in the early stages it is justifiable, and the occurrence of secondary growths in only 28 per cent., as pointed out by Kühn,¹⁹ would support this view. In 1885 Gross²⁰ reported a mortality of 57.57 per cent. in cases of sarcoma from the operation, recurrence in 42.58 per cent., and 35.71 per cent. well after thirty-one and a half months; and for carcinoma, 71.42 per cent. fatal.

Newman, in 1888, places the mortality for carcinoma at 56 per cent., for sarcoma at 53 per cent.

Fenger¹⁹ cites eleven nephrectomies by Israel for malignant disease, with two deaths, a mortality of 18 per cent.; of the nine recoveries two died from relapse, one after six, and the other after three months. The other seven are now alive and well. Two of these may be considered as radical cures, as five and one-half years and four years, respectively, have elapsed since the operation—a percentage of 18 per cent. of radical cures. This is encouraging as to the result of early operative interference. The duration of life without operation is estimated at from two to two and one-half years. Of twelve cases of benign tumors tabulated by Newman, three died from the effects of the operation, a mortality of 25 per cent.

Nephrectomy may be performed by either the lumbar or the abdominal method.

1. *Lumbar nephrectomy.* The patient is placed on the side with the limbs well drawn up, and a firm, round pillow is placed under the loin so as to increase the space between the last rib and the crest of the ilium. Various incisions have been recommended, but that of König allows of most room. It commences about one inch below the margin of the last rib, is carried vertically downward along the outer border of the erector spinae muscle to the crest of the ilium. If necessary to obtain sufficient room it is continued inward toward the umbilicus to the outer margin of the rectus and even through this to the middle line. The vertical part is completed first; then, after examination of the kidney, and if the needs of the case demand more space, the peritoneum is displaced forward and the muscles divided by a transverse incision. With broad and deep retractors the margins of the incision should be held well apart while the kidney is forced into the wound by pressure on the anterior abdominal wall. The perirenal fatty capsule, in the absence of inflammatory changes, can readily be detached by the index finger, the organ isolated and enucleated. The kidney is drawn well into the wound and forward toward the middle line. The pedicle is isolated and separate ligatures are passed around the vessels and ureter, and securely tied. As the vessels are being ligated all tension should be taken off the pedicle, which is divided close to the hilum, examined, and if deemed necessary, separate ligatures applied to the vessels of the stump. A large drainage tube is introduced into the cavity; if much oozing is present, it is preferable to pack with iodoform-gauze, and suture the incision. This König calls his retro-peritoneal lumbo-abdominal incision, in contradistinction to the retro-intrapерitoneal lumbo-abdominal method. In the latter, when he desires to approach the tumor from the front, he divides the peritoneum in the line of the transverse incision.

2. *Abdominal nephrectomy*, or the trans-peritoneal method, when the incision is made through the anterior abdominal parieties. That with the incision in the linea semi-lunaris is known as Langenbeck's operation. The patient is prepared as for ordinary celiotomy, and after opening the peritoneal cavity both kidneys are examined manually. If one is found healthy then the other is removed through a vertical incision in the meso-colon over the renal region. With fingers introduced through this opening the kidney can be isolated as in the lumbar operation, the pedicle ligated and dropped back. Drainage can be effected through the lumbar region. The rent in the peritoneum is generally left unsutured, but it is safer to suture it, as Pugh²⁰ has recorded a case of death from obstruction due to strangulation of a loop of intestine in the peritoneal rent after extirpation of the left kidney for sarcoma.

Both operations have their advantages and disadvantages and their proper spheres of usefulness. To compare the subsequent mortality is no criterion, because it is the size of the tumor that necessitates the employment of the abdominal method. The mortality as given by Newman is 30.5 per cent. for the lumbar and 47.1 per cent. for the abdominal operation. The lumbar operation should be preferred in every case in which the size of the tumor will admit of its removal without undue force, or too extensive division of the abdominal wall. Advocates of the abdominal method lay great stress on being able to determine the exact condition of the other kidney. This can also be done in the other method by exposing the sound kidney through a lumbar incision on that side. It will not add to the danger of the operation, and the peritoneal cavity remains unopened.

I give the details of

A CASE OF SARCOMA OF THE KIDNEY; NEPHRECTOMY; RECURRENCE.

D. B., female, twenty-two years of age, was admitted into the Milwaukee Hospital August 23, 1890, with a diagnosis of renal tumor, probably a sarcoma, made by Dr. O'Malley and confirmed by Dr. Fox, in consultation. She gave the following history: For about two years she had suffered from dragging pain in the right lumbar region. This was marked by periods of paroxysmal exacerbation, accompanied by severe pain in the epigastrium, and vomiting. Such an attack continued for three or four days, during which time everything was rejected by the stomach. These attacks were attributed to disordered digestion and treated as such. They continued to recur and at shorter intervals. Five months before, while engaged in cleaning windows, she slipped and wrenched her right side. This directed attention to the lumbar region, where a tumor was discovered. This tumor had gradually increased

in size, and with the increase there were more frequent attacks of pain in the epigastric region, and accompanying vomiting. There is no history of urinary disturbance beyond increased frequency of micturition prior to menstruation, which has always been regular, but during the past six months of diminishing quantity.

The patient is anemic, but fairly nourished; she has lost in past years about eight pounds in weight. Inspection reveals a fulness in the right lumbar and umbilical regions, and on palpation, an oblong tumor, extending from the right renal region posteriorly to a point beyond the middle line and below the umbilicus, can be made out. The lower end of the tumor is rounded and smooth; the upper, under cover of the costal arches, is larger and nodular. The tumor is freely movable and can be separated from the liver on the right side. It gives an indistinct feeling of fluctuation. On percussion, dulness is found to extend from the middle line just below the umbilicus, backward to the lumbar region, continuous with the liver-dulness, laterally and posteriorly, separated from it anteriorly at a point midway between the middle line and the costal arch. Rectal insufflation of air diminished this area of dulness anteriorly, and thus demonstrated the retro-peritoneal location of the tumor. For ten days prior to the operation the urine varied in quantity from 16 to 32 ounces daily, was of a specific gravity of 1020, contained a trace of albumin, and numerous small decolorized blood-corpuscles and bladder-epithelia.

The operation was performed September 3, 1890. On account of the large size and great mobility of the tumor, the abdomen was opened in the middle line. The left kidney was found to be apparently healthy, but enlarged, the ascending colon displaced inward, and the new-growth in contact with the abdominal wall anteriorly. The ascending colon was now dragged as far as possible toward the median line, a small slit made in the peritoneum to its outer side, and through this the tumor was gradually enucleated by the finger. During enucleation numerous large vessels in the perirenal fat required ligation. The ureter was first ligated low down and cut through. On ligating the vessels the patient suddenly ceased breathing, but rallied soon under artificial respiration and stimulants hypodermically. After section, the renal vein was found to contain partially coagulated blood. The pedicle was dropped back, the rent in the peritoneum left unsutured, no drainage provided, and the abdomen closed. For the first three days following the operation the patient suffered from one of her usual attacks of colic, epigastric pain, vomiting, etc. Beyond this, recovery was uneventful.

The tumor as removed weighed eleven pounds, was covered throughout by large veins, firm and smooth at the lower pole, semi-fluctuating and nodular at the upper. On section, the upper part was found made up of cavities of varying size, filled with dark sanguineous fluid, or partially coagulated blood. No kidney-substance remained. The lower or solid part contained considerable kidney-substance, and, in the center, a fatty tumor undergoing

degeneration. Microscopic examination showed it to be a round-celled sarcoma.

Subsequently the patient considered herself well for about six months, when she had an attack of influenza. Persistent cough followed this, and later her old attacks of colic reappeared. She was readmitted into the hospital July 1, 1891, when examination revealed a recurrence of the disease in the pedicle; also a small nodule of the same character at the lower angle of the abdominal incision, and numerous crepitant râles throughout the whole chest. She died September 1, 1891. At the necropsy the condition as stated was found, and in both lungs multiple and disseminated secondary growths in all stages of degeneration. The left kidney was one-third larger than normal; the other organs were healthy.

PAPILLOMA OF THE RIGHT KIDNEY; NEPHRECTOMY.

A. S. (first seen in consultation with Dr. Lang, November 28, 1892), twenty-six years of age, the mother of two children, the youngest one and a half years old, dates her trouble back to her last pregnancy. During the period of gestation she had occasional uncomfortable sensations in the right lumbar region. After her confinement these disappeared, only to recur early in the summer of 1891. In August, 1892, she first detected, under the right costal margin, a tumor, which was diagnosticated by Dr. Lang as a floating kidney. As the kidney was not very movable, he directed that a snug bandage should be used. This gave temporary relief. Still the tumor steadily increased, and became more movable. About the same time, and two days prior to her menstrual period, she had an attack somewhat resembling renal colic, with hematuria. These attacks have recurred regularly at this time since. In the interval urine is always free from blood. The patient is certain that there is no variation in the size of the tumor, or in the discharge of urine, during these attacks. Menstruation is regular. The woman was always healthy. One brother died of sarcoma of the thigh.

The patient was very anemic, having had a very severe attack of hematuria November 28, 1892, the urine appearing as if pure blood, and being of a deep smoky tinge. Examination of the abdomen showed a tumor to the right of the middle line and on a level with the umbilicus. It was freely movable in an antero-posterior direction. In size it was three times as large as a normal kidney, thickened from before backward; the pelvis and both poles could be made out. On December 1st she was admitted into the Milwaukee Hospital, when it was found that rest in bed had no influence on the character of the urine. On the 4th, she began to menstruate, after which there was less blood in the urine. The daily average of urine voided for nine days was 43 ounces, the maximum being 56 ounces, and the minimum 36. The probable diagnosis was sarcoma.

Operation was undertaken December 10, 1892, under chloroform-anesthesia. The kidney was exposed by König's incision. Exploratory puncture with a hollow needle failed to reveal anything. The needle was followed by ignipuncture, with the Paque-

lin cautery, and digital exploration of the interior of the kidney. The exploring finger detected soft, broken-down tissue, surrounded by an apparently firm wall. This opening was tamponed with iodoform-gauze, an additional forward transverse incision made in the soft parts, and the kidney removed. The incision was closed by deep sutures of catgut and superficial ones of silk. On the first day following the operation, 21 ounces of urine were voided; on the second, 32; on the third, 29; on the fourth, 35; and thereafter the quantity ranged from 32 to 36 ounces. Primary union of the incision occurred. The patient was kept in the recumbent position for four weeks to insure firm union of the incision, and thus guard against the occurrence of a ventral hernia. Rapid improvement of the general health followed and has continued.

The kidney weighed one pound and three-quarters. On splitting it open longitudinally a rounded tumor the size of a tennis ball was found occupying the lower half of the medullary portion, and extending into the pelvis as a soft papillomatous mass. The pelvis was filled with coagulated blood, and two smaller papillomata were found springing from its upper part. A great part of the tumor consisted of disintegrated coagulated blood, on washing which away, the papillomatous character of the new-growth could be demonstrated. The cortex of the kidney was healthy, but somewhat atrophied from pressure over the most prominent part of the tumor.

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H. Unverricht has succeeded *Fraenkel* in the editorial control of the *Centralblatt für klinische Medicin*.

PNEUMONIA AMONG THE INSANE.¹

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FROM March 1 to April 25, 1893, we were afflicted with an epidemic of pneumonia following influenza, during which time there came under my personal observation and care 63 cases of pneumonia, all among the female insane and their nurses.

I should deem myself culpable did I not take this opportunity of placing before the medical profession a summary from the records of these cases, many of which were typical and need no special mention, while a few others were so obscure and misleading as to symptoms that the disease—while suspected by reason of the already large number stricken—could not be diagnosticated by any objective symptoms present, and it was left for the autopsy to establish the diagnosis. The hope that a summary of 63 cases of pneumonia may not be entirely devoid of interest to the profession at large, constitutes my apology for this paper.

A peculiar phenomenon in relation to this epidemic is the fact that for the first three weeks it was confined exclusively to the female wing of the building, not a single case of influenza appearing in the male wards during that time. While the disease was at its height among the females, the male side of the house was enjoying its usual good health, and when the disease finally did gain access thereto there were comparatively few cases, with not more than eight cases of pneumonia. The fact that this institution is all under one roof; that the male and female departments are exact counterparts, of similar structure, heated and ventilated in precisely the same manner, must also be borne in mind.

The etiology of pneumonia is at present an all-absorbing and disputed question, though the theory of a specific origin is becoming almost generally accepted. The pathologic investigations and experiments conducted during the past two years seem to indicate that we must give up our previously-conceived ideas as to causation, accept the pneumo-nia-coccus of *Fraenkel*, and class pneumonia among the acute infectious diseases.

While in the light of recent pathologic researches I am prepared to accept this theory, the question constantly forcing itself upon my mind is: Is it not possible and probable that we may have a specific and a non-specific form of this disease? It would seem to be without doubt, from my recent experience, that the epidemic form of the disease is of specific origin, yet I cannot at present bring myself to believe that every case of sporadic pneumonia

¹ Throughout this article reference is made entirely to croupous pneumonia.

met with in ordinary practice is due to a specific organism and is infectious.

We have Asiatic cholera, and no one doubts for a moment its specific and infectious nature. We also have cholera morbus, or cholera nostras, a disease so identical with the first named, that in severe cases the microscope is a necessary adjunct to a differential diagnosis; yet, except it be during an epidemic of Asiatic cholera, no one pretends to confound the two. Why, then, may we not have two forms of pneumonia, identical in clinical manifestations, yet widely divergent as to cause?

Again, pneumonia is distinctly a disease in which one attack predisposes to another, and one individual may have any number of attacks, while in most all other acute infectious diseases of specific origin, one attack usually grants immunity from a second. The epidemic form of the disease would point strongly toward an acceptance of the theory of specific origin without any further question, but pneumonia is seldom epidemic in character, and when so, is usually more malignant and therefore more fatal than in those cases that we term sporadic, and it is so probably by reason of a specific organism. In these latter cases may not the pneumonia-cocci found in the sputa be rather a sequence of the inflammatory process than the cause? While the recent experiments of Kitasato, Behring, and the Klemperers seem to support most strongly the theory of specific origin, and they show apparently that they have granted immunity from the disease by the injection into the blood of pneumotoxin, yet in two cases about to be related in which there was undoubtedly pneumonia, and which made a good recovery—the lungs becoming clear and the patients resuming their work at the end of two weeks in one case and of three weeks in the other—they became reinfected, and both cases died within three days after the second infection. Yet, according to our pathologists, these cases should have been proof against reinfection for at least six weeks. However, whether pneumonia is or is not always of specific origin, the question still remains to be definitely determined, and there is no doubt in my mind but that there are more individual causes of pneumonia than are or ever will be known to medical science.

The weather of February was cold and raw, while that of March was clear and unusually mild, though with cold winds. If atmospheric or telluric conditions play any part in the causation of pneumonia, the rather sudden change in our climate about the first of March may have been an important factor, for it was just at this time that influenza made its appearance. Yet, if so, how can we account for the fact that for so long it was confined exclusively to the female wing? This is suggestive that the cause may be looked for in some defective sanitary con-

dition of that side of the house, though so far as is known at present the plumbing, system of sewage-disposal, and general sanitary condition of the house were never better. If we may still consider atmospheric conditions as a cause, our system of ventilation—that of drawing in air from the outside and forcing it through the wards to an exit in the roof—must be taken into consideration, and also in this connection, the overcrowded condition of the hospital. It would be interesting to know why all of these cases were preceded by influenza, and why there should have been 63 cases of pneumonia among the females and but 8 among the males. Does the presence of this catarrhal affection render individuals more susceptible to infection—the inflamed mucous membrane with its altered secretion becoming a culture-medium for the pneumonia-cocci, the development of pneumonia depending upon individual predisposition, aided, perhaps, by certain atmospheric conditions with which as yet we are not familiar?

Whatever may be the cause, we have to deal with the fact that on or about March 1, 1893, influenza of a most severe type made its appearance in the hospital, and made no distinction in its ravages between the sane and the insane. Among the patients and nurses in the female department there were 176 cases of influenza, followed in 63 cases, or nearly 36 per cent., by pneumonia.

As a matter of convenience, I have grouped the cases in four classes, as follows:

Class I, typical cases, of which there were 24; Class II, cases in which the usual premonitory symptoms were absent, of which there were 33; Class III, cases in which there were no objective symptoms, of which there were 4; Class IV, cases in which the physical signs were present, with no special disturbance of temperature, pulse, or respiration, of which there were 2.

CLASS. I.—In every case the patient suffered from influenza, complaining of intense boneache, headache, backache, creeping chills, and coryza. The temperature ranged from 100° to 102° , and the pulse from 90 to 120. The acute symptoms subsided on about the third day and the patients felt much better—so much better, in fact, that in the morning many left their beds against my advice—when toward evening or late in the evening, they were again seized with a severe chill lasting from five to fifteen minutes, the temperature rising to 104° or 105° , the pulse to 120, and they complained of a sharp, stabbing pain in the chest. The respirations were accelerated, and there was a cough, short, hacking, and suppressed, with very little expectoration of a frothy, tenacious mucus, which in a few cases was blood-tinged. On the second or third day the sputa became "rusty-colored," the physical

signs developed, and the patients presented the characteristic pneumonic appearance, with flushed and anxious countenance, temperature 102° or 103° in the morning, and from 103° to 105° in the evening; pulse from 100 to 110 in the morning, and from 120 to 130 in the evening; respirations from 40 to 60 and shallow; great restlessness and sleeplessness; anorexia, constipation, thirst, and coated tongue. The pain in the chest in most cases disappeared on about the fourth day, while in others it persisted throughout the entire illness and with such severity that it became necessary to use hypodermatics of morphin for its relief. In these 24 cases, the crisis occurred on the sixth day in 3; on the seventh day in 10; on the eighth day in 4; on the tenth day in 2; and 5 died on or about the ninth day of the disease at an average age of sixty and three-fifths years, the youngest being forty-six and the oldest seventy-four. The average age of the nineteen recoveries was forty-five. Of these cases the right lower lobe was affected in 9; the left lower lobe in 6; both lower lobes in 2; the entire right lobe in 2; the entire left lobe in 1; the left apex in 2; the right apex in 2.

One case in particular deserves more than passing notice: On the fifth day of the disease one of the nurses, whose left lower lobe was affected and whose symptoms were all favorable, was seized with an urgent desire to defecate while the nurse in attendance was busy with another patient. She therefore disobeyed orders, and getting out of bed to use the commode, was taken with a violent chill. Her temperature, which had been 102° , rose to 105° , and in a few hours she complained of intense pain in her right side. On the following day the physical signs showed an extension of the inflammatory process to the right lower lobe, while the left was resolving. The expectoration became prune-juice in color, and on the morning of the third day thereafter, her temperature was 105° , pulse 160, respirations 65, with extreme dyspnea, cyanosis, delirium, picking at the bedclothes—in fact, symptoms of approaching death. Nitro-glycerin and strychnin were administered hypodermatically, and brandy and aromatic spirit of ammonia internally, with the effect of lowering the pulse to 150. Sponging with equal parts of alcohol and cold water reduced the temperature to 103° (sponging was resorted to whenever the temperature reached 104°), and oxygen gas was given for five minutes every half-hour. These methods were kept up for two days and nights, during which time her pulse continued at 150 and respirations at 60, when the crisis occurred, the temperature fell to normal, the pulse to 96, with a general subsidence of the alarming symptoms. However, at the end of two days her temperature again rose to 102° and her pulse to 120. Examination revealed an extensive effusion in the right

pleural cavity which at the present writing (May 6th) is not wholly absorbed, and the patient, while extremely weak, is gradually regaining her strength.

CLASS II.—As previously indicated, the usual premonitory symptoms of pneumonia were absent, and with the exception that in many there was also no pain, they were identical with those of Class I.

All suffered with influenza, but it was not until the fifth day that the physical signs of pneumonia developed, respirations became accelerated, and the sputa blood-tinged. There was no initiatory chill followed by a sudden rise in temperature; the pulse continued at from 100 to 120; except in a few cases no pain was complained of; the tongue, though coated with a white fur, was moist and the expectoration previously to the fifth day was bronchitic in character. Of these 33 cases, 5 were under thirty, 18 over fifty, and 10 over sixty years of age. Six died, of whom 2 were over seventy, 1 was fifty-one, and 2 were epileptics at twenty-seven and twenty-eight years of age. The average age at death was forty-nine and a half years.

CLASS III.—The four cases of this class were patients in the last stage of dementia, and were in an extremely adynamic condition owing to their want of exercise and long confinement. Their lack of vitality rendered them easy victims to the disease, and it is hardly to be wondered that their symptoms were not pronounced, and that they succumbed to the disease. But for the fact that others in practically the same mental and physical condition contracted pneumonia and presented the usual symptoms, these would not be mentioned. I am frank to admit that had these cases come under my observation during a season of health, it would never have occurred to me to suspect pneumonia, for there were absolutely no objective symptoms, and if influenza developed previously to the pneumonia no one ever knew it. The patients simply did not feel well, and so stayed in bed. In no case was the pulse over 100, or the temperature over 102° , but in all the pulse was small, weak, and compressible. There was no cough, no expectoration, no pain, no acceleration of respiration, no dyspnea, no cyanosis. Exploration of the chest gave a practically negative result, and the physical signs were so obscure that a positive diagnosis of pneumonia could not be made. It was merely suspected, and the autopsy confirmed the suspicion. The inability to obtain clear and unmistakable physical signs in these cases may be attributed to their slow manner of breathing, for in counting the respirations the movement of the chest-walls was almost imperceptible.

Niemeyer, in his *Text-book of Practical Medicine*, vol. i, page 179, says: "In aged persons or subjects of depraved constitution many have no characteristic sputa; nor do they complain

either of dyspnea or pain the physician having been deceived by external appearances, which really bear greater resemblance to typhus than to pneumonia of vigorous adults, and having neglected to make a physical exploration of the chest."

To me these cases were interesting and instructive, and I am now convinced that many of the aged and feeble dementes who die from no apparent cause except a gradual failure of the vital powers may die instead from asthenic pneumonia.

These four cases were aged respectively fifty, fifty-one, fifty-two, and sixty-two.

CLASS IV.—These two cases were peculiar and interesting from the fact that the temperature ranged from 97° to 99°; the pulse from 70 to 80; respirations from 16 to 24. In both, a small portion of the right lower lobe was affected; both, it may be well to say, were nurses, one of whom suffers from an organic lesion of the heart. The characteristic pneumonic sputa and pain were present, lasting about three days. Yet, when these patients were considered well enough to leave their beds, on assuming the upright position the pulse ran up to 120, and the feeling of nervous exhaustion and prostration was extreme. They made a slow recovery and were among the last to have again the feeling of well-being. I am unable to account for the clinical phenomena presented by these two cases, except it be on account of the small area of lung involved. Yet we know that often in such cases the severity of the symptoms is out of all proportion to the amount of lung-tissue involved.

Of the two cases alluded to previously who became reinfected, little need be said. One was a case of senile dementia, aged seventy-four, who was one of the first to contract pneumonia. From the first attack she apparently made a good recovery, and was about the ward helping with the work. Three weeks later she again developed the disease, and from the beginning her symptoms were extremely grave and pronounced. She died on the third day. The second case was that of a colored woman, aged fifty-one, who had been admitted to the hospital a short time previously, suffering from acute mania. As she recovered from her period of excitement she contracted pneumonia and recovered by lysis—the only case of recovery, strange to say, which did not terminate by crisis. She was apparently well for two weeks, when she again contracted pneumonia and died on the third day of the disease.

Complications. The complications in the whole number of cases were comparatively few, though not unimportant. An exhausting diarrhea requiring treatment was present in three cases; jaundice appeared in one; pericarditis in two; pleurisy de-

veloped in two-thirds of the cases, and meningitis was entirely absent. In no case was delirium a marked symptom.

Sequelæ. About one-half of these cases made an uninterrupted recovery. The remainder were left in an extremely nervous, weak, and prostrated condition, from which they recovered slowly. In several otitis media developed, and in a few others symptoms of heart-failure occurred when they attempted to sit up in bed; symptoms of nervous prostration were severe in all.

Mortality. When we take into consideration the fact that fifty-five of these patients were afflicted with the various forms of insanity; that a few, owing to their delusions, were difficult to manage, and (owing to the number of nurses sick) could not be constantly watched, it is surprising that the death-rate was not higher.

Of the 15 deaths, 11 were cases of senile or terminal dementia; 3 of epileptic dementia; 1 of recent acute mania. It will therefore be seen that death took place in those patients whose vitality was at a low ebb, and who, enfeebled by age, by epilepsy, by sickness, and by long confinement, were in no condition to withstand the ravages of a disease acknowledged by all authorities to be one of the most fatal of the acute diseases.

The ages at death in the 11 cases of senile or terminal dementia were as follows: 60, 46, 74, 50, 52, 70, 67, 62, 50, 73, 51. The average age was 59 $\frac{1}{4}$. In the 3 cases of epileptic dementia the ages were 27, 28, 65; of the cases of recovery from acute mania, 51.

SUMMARY.

Influenza	176 cases.
Pneumonia occurred in { patients, 55 } { nurses, 8 }	63 cases, or 36 pr. ct.
Deaths from pneumonia (all patients)	15 cases, or 23.8 pr. ct.
Average age at death	55 years.

Treatment. Since the days of Rasori, when pneumonia was treated by bloodletting and two-scruple doses of digitalis, and patients were bled daily until either their symptoms became more favorable or they died, we have steadily advanced; and as our knowledge of pathologic anatomy has become more exact, we have come to a more conservative and rational method of treating pneumonia.

The expectant plan of treatment now almost universally in vogue, since physicians have accepted the fact that pneumonia is an acute self-limiting disease, still has for its opponents those who hold that, in the beginning, antiphlogistic and depleting methods of treatment exert a favorable influence upon or abort the disease.

Whichever method is the more rational—and from personal experience I can testify to the greater

efficacy of the expectant plan—our text-books, while agreeing that the indications are to keep the temperature within bounds and to support the heart, are not altogether agreed as to the better way of accomplishing the desired result. Some recommend quinine in large doses at the beginning; others have their own favorite antipyretics, while, to support the heart, digitalis and alcohol have been extensively used.

Dr. Osler¹ says: "No certainty has as yet been reached as to the value of digitalis in the failing heart of fever. The practice is very general, but it is a drug to be used with caution in this condition." Niemeyer² says: "Digitalis has been extensively employed and with great justice in the treatment of pneumonia . . . with a pulse of from 100 to 120 in frequency."

The physiologic action of digitalis is "to prolong diastole, increase the vigor of systole, and increase arterial tension." Again, to quote Niemeyer, page 174: "The small soft pulse is due, not to weakness of cardiac contractions, but to lack of blood in the left ventricle, which causes a deficit in the supply of the aortic system. The left ventricle is imperfectly filled because afflux of blood to it is obstructed."

Patients with pneumonia, except when an unusually large amount of lung-tissue is involved, die at the heart and undoubtedly because the heart is in a great measure deprived of its necessary rest and nutrition, and the heart-muscle itself is disorganized by the high temperature to which it is subjected for so long a time. It seems to me, therefore, that in the rapid pulse of pneumonia, great harm can be done by the administration of digitalis, for the heart, already weak from overwork, is made still more so by that drug. The effect of digitalis is to temporarily lower the pulse-rate and increase the vigor of the contractions, thereby really increasing instead of diminishing the work the heart has to do. The obstruction in the lungs is not removed, arterial tension is increased, and when the effects of the drug wear away the heart is left much weaker than before. I am indebted to Dr. Thomas P. Prout, pathologist to this hospital, for the statement that in 30 per cent. of his autopsies on the insane the heart was in a state of marked fatty degeneration. In this condition, so predisposing to heart failure, digitalis would certainly be an unsafe drug, and it is a condition which should always be borne in mind, even in the treatment of the sane. In my experience with this disease, nitro-glycerin in small doses, repeated often if necessary, has been more than a substitute for digitalis, and I have been more than pleased

with its effect. In every case in which it was used the pulse-rate slightly diminished in frequency and arterial tension was lowered, thereby temporarily relieving some of the strain upon the heart and also relieving collateral hyperemia. Strychnin, as a nerve and cardiac tonic, in doses of from one-sixtieth to one-thirtieth of a grain, repeated every two hours and oftener if necessary, cannot be too highly extolled, and in my opinion alcoholic stimulants are indispensable.

My own cases, with two exceptions, were treated on the expectant plan. Jacket poultices of flaxseed meal, renewed as often as they lost their heat, were applied and covered with cotton batting. As an expectorant (or placebo), ammonium chlorid in brandy was given in small doses every two or three hours. Aconite and veratrum were also used at the beginning, but with no appreciable effect. Patients were confined to a diet of milk, eggs, and beef-tea, and the bowels were kept open by the use chiefly of warm-water enemas (glycerin suppositories were used in a few cases with negative results). In the few cases in which the temperature had a tendency to rise above 104°, sponging with equal parts of alcohol and cold water was resorted to with excellent results. No antipyretic medicines were used, except at the commencement of the influenza, when a few powders, containing five grains each of antipyrin and phenacetin, were given to relieve the distressing aching. Morphin hypodermatically in one-fourth grain doses was given unhesitatingly when necessary for the relief of pain, with no unfavorable result. From the fourth day the patients were given strychnin sulfate, from one-sixtieth to one-thirtieth of a grain, with two drams of brandy every three hours, and these two remedies were increased or diminished in amount and frequency, according to the indications. Caffein citrate in from three-grain to five-grain doses, was used in a sufficient number of cases to convince me that it is a remedy of little value in this disease. In severe cases, with flagging heart, aromatic spirit of ammonia, with brandy, was given in connection with the nitro-glycerin and strychnin. In two cases, both nurses, one of which has been related at length, oxygen gas was also used, with the effect of relieving the cyanosis and dyspnea and lessening the rapidity of the respirations while being inhaled, but it did not lower the pulse-rate except in one instance, and I should wish to give it a more extended trial before expressing an opinion as to its value. It certainly did some good, and it seems to be a rational means of treatment, but many opinions have been expressed both for and against its use.

The two exceptions to this plan of treatment spoken of were given at the beginning ten grains of calomel, followed in six hours by a saline. Both

¹ In his recent Practice of Medicine, page 531.

² In his Text-book of Practical Medicine, vol. i, p. 191.

cases died, but I do not by any means attribute their death to the initial treatment. I may also add that I have never seen any benefit from this method of treatment, and it does not seem reasonable to suppose that in any disease in which all the indications are to support the patient, exhausting measures, either at the beginning or at any other time, can abort the disease or be of any benefit to the patient.

RUPTURE OF THE URETHRA IN THE MALE.¹

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RUPTURE of the urethra may be produced by causes both internal and external. Those internal may be mentioned as foreign bodies coming from the bladder, as calculi; or such bodies from the outside, as catheters, sounds, or other bodies introduced through the meatus. The external causes are chiefly, the falling astride of something, kicks or blows upon the perineum, or wounds inflicted by sharp instruments. Another cause may be a primary stricture in the urethra, with damming back of the urine, followed by distention of the canal above the point of stricture, with consequent ulceration and perforation. Some of these causes may rupture the urethra instantly, while others lead to it by the steps of ulceration and perforation.

The symptoms of rupture of the urethra are pain, inability to pass water through the meatus, dribbling of urine through the external wound, if such be present, and later, inflammation, swelling, and suppuration in the perineum. Either or all of these symptoms may be present in varying degrees. The location of the rupture and its extent modify the symptoms. For instance, if it occurs in the spongy portion of the canal, little or extravasation occurs; nor are any of the symptoms severe, for here the canal is surrounded by contractile and muscular tissues that offer resistance to extravasation. No symptom but pain may follow rupture confined to the prostatic portion. All such injuries in the membranous part of the canal, however, are usually followed by the more intense symptoms because of the cellular tissues that fill the perineum.

Having a patient in such a condition that the symptoms lead us to believe that his urethra is ruptured, the first course to pursue is to find out if the canal is continuous and open from the meatus to the bladder. Here it is that great care should be exercised. If the history shows that a foreign body has been introduced from without and lost, or that a non-traumatic obstruction has suddenly appeared, the exploring sound or catheter must be introduced very slowly, so as to detect the obstruction when it

is felt, and not to push the body further toward the bladder. Occasionally the body may be felt by palpating the penis; the sound may then be dispensed with. If the body be encountered in the pendant portion, the penis should be grasped beyond the body, and with proper forceps the attempt at removal be made. In case this is not such an instrument as a hair-pin or a pig-tail, which slips in more easily than out, it is very probable that, with patience, it can be removed. When not successful, however, no delay should be allowed, but the operation of perineal section should be performed at once.

Again, a stricture may be met in the portion of the canal external to the rupture. If this be all, or part of the cause, it should, before proceeding, be freely broken up, either by divulsion or division. But, the exploring sound may pass with little or no obstruction into the bladder, in cases in which the rupture is slight, caused perhaps by a puncture, or by mal-instrumentation. This condition is the most favorable, and if here the urine flows freely by the meatus, it is quite proper to allow it to do so, and watch the case carefully for perineal symptoms. The cases that we more commonly meet with, however, are those in which the symptoms are present in their greatest intensity, when the exploring sound refuses to pass into the bladder, when there is evidence of severe laceration of the urethra, either from internal mal-instrumentation or external straddle-falls. When we meet with these cases we must not wait for anything, but proceed immediately to perform perineal section. Extravasation occurs so quickly, and is so disastrous in its effects and results, that delay means ulceration, suppuration, and absorption of poisonous urea and pus.

Perineal section means opening of the perineum without necessarily going any deeper. When the incision is carried into the urethra, it becomes an external perineal urethrotomy. In either case a perineal section is the first step, and whether or not the following steps convert this into an external perineal urethrotomy depends on the condition of the parts.

The operation of perineal section is performed as follows: Placing the patient upon the table in the lithotomy position, and having straps or assistants to hold the flexed legs firmly and widely apart, the perineum is scrubbed and shaved, and the patient fully anesthetized. I do not believe a sound in the urethra is of any service. Anyone with a knowledge of the anatomy of the parts will experience no difficulty, the only vessels of size to be avoided being the arteries of the bulb, and if the incision is carried down exactly in the raphé these will not be disturbed. The scrotum should be held up by an assistant, who is careful to keep the raphé line constant and steady. When extravasation has existed for any length of time, the knife will very soon

¹ Read before the Med. Soc. of the County of Rensselaer.

enter a cavity, from which urine, and perhaps pus, will gush. If this does not take place, the incision should be carried down, using director and retractors carefully placed, until the urethra is reached. This is recognized by its cord-like character, or by the bulging of the foreign body, if one be present. The urethra may then be incised, and the foreign body removed.

If the urethral rent be easily found, a second opening should not be made, and the foreign body should be coaxed along to the rent, and there removed. In any case the wound should now be thoroughly washed out with an antiseptic solution, preferably mercuric chlorid (1:2000 or 1:3000), and the cavity searched for foreign substances. A soft rubber or silk catheter should now be passed through the meatus into the bladder. This may be an easy matter if the rent is slight; but if the urethra is lacerated or torn across it becomes a very difficult procedure. The catheter should be passed in at the meatus until it appears in the perineal wound, when attempts should be made to guide its point into the bladder. Success may attend the procedure by passing one catheter from the wound into the bladder, and a second larger size from the meatus to the wound; then telescoping the smaller into the larger one, the former may be carefully drawn and pushed through the urethra from behind forward. At any rate, the opening into the bladder is there, and can be found by perseverance and patience. In case one tires before discovering this, it can be left until later, when granulations fill in around it and it can be readily seen. Attempts should be made daily, however, until it is found and a catheter introduced. The bladder should now be washed out with a borac acid solution.

As to the after-care, it is my practice to leave a soft catheter *in situ*, from meatus to bladder, for the first forty-eight hours, for by so doing the severed ends of the urethra become somewhat fixed and approximated in the wound. A peculiar affinity seems to exist between the severed ends of the urethra, and they will frequently adhere to each other with surprising rapidity. The perineal wound should be carefully attended to daily, packing with iodoform-gauze being preferable.

The catheter should be removed in forty-eight hours, boiled and reintroduced; this will now be done with much greater facility than before. After a few days or a week this can be dispensed with and the urine allowed to pass, pressure on the perineal wound assisting its escape by the proper channel. It is needless to add that we should look well after the constitutional symptoms of our patient, using anti-pyretics and supporting measures as indicated until fever subsides; even for some time afterward tonics are indicated, and should be judiciously employed.

Urethral fever should also be guarded against, even in slight cases, as this in itself not infrequently leads to a fatal issue. Full doses of quinine will usually abort this.

As to the final result in these cases, much depends on the cause and extent of the trouble. If slight, there will probably be no trouble whatever. A sound should be passed at intervals to guard against cicatricial contractions, and, as a rule, complete recovery ensues. Occasionally the fistula refuses to heal, or delays a long time; but this is exceptional. In such a case I should advise slight curettings and firm pressure. We meet with cases, however, in which the extravasation and suppuration with absorption have been so extensive that the patient is in a very bad condition when first seen, and frequently succumbs quickly. It is always better to give a guarded diagnosis.

I shall briefly relate a few cases that I have encountered and which will be examples of the various causes and conditions already described.

CASE I.—Aged thirty; admitted into the County Hospital, with the history of having fallen across some beams. When seen he was in a very bad condition, in fact, almost in a state of collapse. The perineum and scrotum were greatly distended and ecchymosed. Very little urine dribbled through the meatus, and the bladder rose high over the pubes. He was prepared for operation and anesthetized at once, and an incision made directly into a cavity from which urine gushed. A catheter was easily passed from the wound into the bladder, with partial relief. The catheter was left *in situ* and the urine was permitted to dribble through. The patient, however, sank rapidly and died on the following day.

CASE II.—Aged about thirty; was admitted into the Troy Hospital, with the history of having received a pitchfork-stab in the "crotch," followed by swelling. He was in a bad condition, and it was impossible to pass a catheter, by the way of the meatus, into the bladder. Others had made the attempt before and left their results. Perineal section was performed at once, and the urethra was reached without difficulty, as it was easily recognized by its cord-like feeling. The soft parts had not broken down, but were very edematous. The urethra was opened in the line of incision and a catheter was passed into the bladder. Although everything was done for the man, he died.

CASE III was seen in consultation at Cohoes. Three days previously the man had fallen astride some planks. Such symptoms soon followed as retention of urine, pain and swelling in the perineum, etc. Attempts to pass a catheter failed. The following day the scrotum and penis began to swell, and, continuing, soon reached an enormous size, with ecchymosis extending to the inside of the thighs. Punctures in the scrotum allowed gas and fluid to escape. Perineal section was performed on the fourth day after the injury, the incision soon reaching a cavity and showing the tissues of the perineum disintegrated. Some urine

escaped. It was with great difficulty that a catheter was passed into the bladder, and a large amount of urine evacuated. The urethra was found to be torn completely across, and the inner end lay free in the wound, entirely separated from its contiguous tissues. The bladder was washed out, and a catheter was left *in situ*. The condition of the patient had been bad from the beginning, the pulse small and weak, and the skin clammy. He rallied, however, and reaction became fully established. He finally recovered, but to show how disastrous extravasation is, abscesses finally developed in both groins, the scrotum sloughed so as to lay bare the testes, a slough occurred at the junction of the penis with the scrotum, and a second fistula appeared. At the present writing the man is improving rapidly, and urine is passing freely through the meatus with the fistula closing rapidly.

In the three cases just given the injury was of an external nature, causing the rupture; the following are examples in which an internal cause was present:

CASE IV, aged sixty-five, was admitted into the Troy Hospital with the history of having five days previously introduced a lead pencil into the urethra, which had slipped from the man's grasp. After a while, pain became so severe and micturition so difficult that he sought relief. When the sound was passed into the urethra it encountered the foreign body in the membranous part of the canal. It could not be grasped. Perineal section was performed at once, and the scalpel soon reached the side of the pencil, whose peripheral end lay in a suppurating cavity. It was removed and the cavity and bladder washed out. The pencil was five inches long, and incrusted on its inner end. Bleeding was profuse from the bladder, and this nothing seemed to control. The catheter was left *in situ*, but soon became blocked. The patient succumbed the following day. The necropsy revealed a perforation in the posterior wall of the bladder, produced presumably by the end of the pencil. The organ was filled with clotted blood.

CASE V, aged fifty years, was admitted into Troy Hospital, complaining of difficulty in urination, and the existence of a fistula in the perineum through which urine escaped. A sound was introduced and after passing a moderately tight stricture a calculus was encountered. This was removed with urethral forceps, and the reintroduction of the sound revealed the fact that the canal was blocked with débris which could not be entirely removed. With the object of both removing the débris and healing the fistula, perineal section was performed, and a spoonful or more of phosphatic débris was taken away. The bladder was free from stone, although chronic cystitis was present. After curetting the fistulous tract, the bladder was irrigated and the wound was packed. The catheter was left in place for a day or two; then, by applying a compress to his perineum the patient passed most of his urine per meatus. The fistula gradually and completely closed.

All of the foregoing cases required a perineal operation. We encounter cases, however, in which it

is not necessary to do any operation, as the point of rupture may close quickly without symptoms. As already stated, if the rupture is in the spongy or prostatic portion, there is not, as a rule, any extravasation. This is illustrated by the following:

CASE VI.—This man introduced a hair-pin into his urethra to dilate a stricture; the hair-pin slipped in and disappeared. About a week later the ends of the pin appeared, one on each side of the meatus. He tied them together with thread to prevent them from slipping back. When I saw him I snipped off one end, and unhooked the other. No symptoms of rupture were present, although the body had made two openings through the urethral wall an inch and a half from the meatus.

CASE VII is a peculiar one because the urethra was ruptured by a foreign body in the rectum. The patient, aged about forty, about five day previously to my seeing him in consultation had swallowed an artificial tooth-plate. He was given proper diet and kept quiet for four days, when he was attacked with severe urethral hemorrhage. His attendant examined his rectum, found the tooth-plate, and with a little difficulty removed it. The hemorrhage from the urethra continued, no blood, however, escaping from or into the rectum. Neither did any find its way into the bladder, as the urine passed after the first instant was clear. We passed a large soft catheter, which controlled the bleeding. There was no extravasation. The catheter was left in place for forty-eight hours, although once in the interval it was expelled by the patient, with a return of the hemorrhage. Reintroduction of the catheter once more stopped this. The tooth-plate probably had punctured the urethra by one of its projecting points, making a valve-like slit, which prevented the blood from passing toward the rectum, and also preserved the parts from extravasation.

The prognosis as to life in rupture of the urethra depends, as we have seen in the foregoing cases, upon the condition of the patient at the time of the operation. If several days have elapsed since the injury, with little or no urine passing, and with extravasation, the chances are against recovery. On the other hand, with slight injury, some water passing, and with little or no extravasation, the patient should recover in every instance, as well as in those more severe cases that have been seen and operated upon within a few hours after the accident.

The causes of urethral rupture, therefore, may be internal, external, or through some other organ.

The symptoms are difficulty in urination or retention; pain; swelling in the perineum; hemorrhage; dribbling of urine through the external wound.

If the cause be a foreign body, it should be removed, by the meatus if possible.

If there is no swelling in the perineum, and if urine flows freely through the meatus, allow nature to take its course, watching closely for any further symptoms.

If swelling exists in the perineum, with evidence of extravasation, perineal section should be done at once.

Care must be taken to keep the wound and the bladder as aseptic as possible.

Supporting and antipyretic treatment should be vigorously employed.

The prognosis should be guarded.

Care should be given as regards the caliber of the urethra for several weeks afterward.

CLINICAL MEMORANDUM.

THE LOWEST LIMIT OF PELVIC CONTRACTION ADMITTING OF SYMPHYSIOTOMY.

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An impression prevails that symphysiotomy is the proper operative treatment for labor obstructed by a moderate degree of contraction in the pelvis, in which the other alternatives are the induction of premature labor and craniotomy. This view was expressed without contradiction at a recent meeting of a prominent medical society at which the operation was the sole topic of discussion. Increasing experience, however, demonstrates that symphysiotomy is to be depended upon in the case of a pelvis symmetrically contracted, that a few months ago would have been thought quite impassable for a living child, even though the symphysis were cut. Leopold has recently delivered in this way a woman with a pelvic conjugate of only 6 cm., and more than a month ago in the Philadelphia Hospital I delivered without difficulty a rhachitic dwarf, a primipara, 4½ feet high, whose conjugate was, I think, very little if at all over 65 mm. The diagonal was a scant 9 cm., but the conjugato-symphysial angle was so increased that 2¾ cm. was, in my judgment, a sum scarcely sufficient for the subtraction. To be on the safe side I induced labor two weeks before term; then dilated the cervix, performed version after opening the symphysis, and extracted the child in a few minutes. It weighed 6 pounds, 4 ounces. The head-measurements were: Bi-temporal, 8 cm.; bi-parietal, 9 cm.; occipito-frontal, 11½ cm.; occipito-frontal circumference, 33½ cm. The woman had an absolutely afebrile convalescence and the child is thriving.

The combination of delivery before term and symphysiotomy will give us entire control over any grade of symmetrically contracted pelvis that we are likely to see in this country, and whenever possible the two should be combined. In a very large experience with the induction of labor from two to four weeks before term I have found the mortality for the children no greater than in delivery at full maturity, whereas the slight diminution in head-diameters and the compressibility make a vast difference in the ease of delivery. Another, and a very great advantage in the induction of labor when symphysiotomy is contemplated is the fact that a convenient hour can be selected by the operator for the delivery, and all preparations can be made for the

appointed time, as in an abdominal section. The plan adopted in the case here reported, and always followed by me if practicable, was as follows: Early in the morning a bougie is inserted and an ounce of glycerin injected alongside of it. Twenty-four hours later the lower abdomen is cleaned and shaved. By this time, if the pelvis is so contracted that the head cannot enter the inlet, the cervix will be softened but scarcely at all dilated. The cervical canal is then dilated with three sizes of water-bags, the largest twice the size of the largest Barnes's bag, each left in for about an hour. This is most conveniently done by an assistant. At about the time that the artificial dilatation is completed the operator arrives prepared to operate and deliver as soon as the patient is anesthetized, the vagina is disinfected, and the instruments are sterilized.

MEDICAL PROGRESS.

Nervous Disorders in Tuberculous Patients.—In a study of the nervous disorders of tuberculous patients, WEILL (*Revue de Médecine*, 1893, No. 6, p. 450) has found that in about 40 per cent. of cases there exists profound hyperesthesia—muscular, articular, and osseous. This hyperesthesia, apart from spontaneous pain, may be distributed over the whole body, but always predominates upon one or the other side. It is generally situated upon the neck, the trunk, and the roots of the extremities. The opposite side of the body may be anesthetic or hyperesthetic. Often there is also concentric and regular limitation of the visual field, unilateral or bilateral. Rarely there is muscular weakness. Muscular hyperesthesia is the most constant, the first to appear, and the last to disappear. Once present, these nervous disorders attain their maximum intensity in from a few days to two months. Rarely do they persist longer than three months. They disappear slowly and progressively in the course of a few weeks. Occasionally, they disappear rapidly. These nervous disorders have no relation, either as to intensity or as to distribution, with the seat, extent, and gravity of the pulmonary lesion. They generally appear in the early months of the tuberculous process; but once present, they seem to pursue an independent course. They occur alike in benign and in grave forms of tuberculosis. Sometimes they pursue a course opposite to that of the pulmonary phenomena, exacerbating when these decline, and *vice versa*. In a large number of cases, however, the course of the two manifestations is parallel. An intimate relation exists between this syndrome of nervous symptoms and that form of pulmonary tuberculosis attended with erythema, spasmodic cough, attacks of oppression, vomiting, and palpitation. These symptoms, by their character, suggest the stigmata of hysteria. In none of the twenty cases studied, however, was there a history of neurotic heredity, of convulsive attack, or of mental peculiarity. The condition must be considered as a symptomatic hysteriform condition. The phenomena are thought not to depend upon the action of the bacillus of tuberculosis upon the nervous centers, nor upon microbial intoxication. They must be regarded as manifestations of a centripetal irritation, of which the point of departure is constituted by the sensitive nerves of the bronchi and lungs.

Successful Excision of Hydrencephalocele.—CHARLES H. MAYO (*Annals of Surgery*, vol. xviii, No. 1, p. 26) has reported the case of an infant, a year and a half old, who presented a spherical pulsatile tumor, of the size of a small orange, projecting centrally from the occipital region, and which had been present from birth. The prominence was so tender that anesthesia was required to permit of the examination. The crest of the tumor was white and glistening, and apparently very thin, with a few veins coursing over its surface. The sides were evidently much better protected. At the right base there was a considerable thickening, evidently connected in the past with the cranial contents through a lateral fissure from the central opening. Operation having been decided upon, two scalp flaps were dissected from the sides of the tumor, and the dura mater was freed to the bony opening, which led inward and slightly to the right, and probably communicated with the right ventricle. The sac was opened, and an ounce of apparently normal cerebro-spinal fluid escaped. The sac-wall was composed of dura mater, and near the base, spreading out thinly on the sides, was evident atrophied cerebral tissue. The neck of the mass was ligated with heavy catgut, the entire sac cut away, the tissues around the stump securely fixed over it by buried sutures, the two flaps sutured in apposition, and a dry dressing applied. During the application of the dressing the child vomited, and the increase of intra-cranial pressure caused a pronounced left-sided spasm, lasting several minutes. Five grains of calomel were administered, with rapid effect, and the child made an uneventful recovery. The child was dismissed at the end of two weeks, the wound firmly united, and with no appreciable pulsation at the seat of operation.

Convulsive Tic.—At a recent meeting of the New York Neurological Society, DR. J. F. TERRIBERRY presented a male, thirty-nine years old, who, eight or nine years before, had noticed slight twitching of the muscles about the left eye, which gradually became more marked and extended to the muscles of the cheek, so that in a short time all of the muscles of the left side of the face were involved in the spasm. The movements occurred in paroxysms, separated by intervals of an hour or two, and it was said that they took place during sleep. They were aggravated by talking and by emotional excitement. Careful examination failed to reveal any organic trouble, either central or peripheral, in the course of the seventh nerve that could act as a cause. There was, however, decided nasal obstruction on the left side, which was removed. Some errors of vision were also discovered and corrected. The spasm of the facial muscles, however, was in no way affected by the correction of these defects. The operation of stretching the facial nerve was advised, and was performed, the nerve being exposed by an incision behind the ear. A weak faradic current greatly facilitated finding the nerve. When located, it was picked up with a blunt hook and stretched, the force employed being from four to seven pounds. The immediate result of the operation was, as had been expected, complete paralysis of the muscles of the left side of the face. There was no effect upon the hearing, taste, or the palatine muscles, showing that the effects of the traction were not felt centrally. Subsequently, a gradual return of volun-

tary control of the facial muscles was noted, and this steadily increased. There was no return of the spasm after the operation.

Hemorrhagic Infarct of the Testicle.—ENGLISCH (*Wiener medicin. Blätter*, 1893, No. 23, p. 303) reports three cases of hemorrhagic infarct of the testicle, and refers to three others recorded in the literature. The condition is characterized by sudden swelling of the testicle, and in less degree of the epididymis, with the formation of a firm band in the course of the spermatic cord, without assignable cause; rapid inflammation of the scrotum; general prostration; nausea, vomiting, and sometimes symptoms suggestive of peritonitis; acute hydrocele of slight degree; distention and thrombosis of the veins; inflammatory extension to adjacent structures. The temperature remains elevated for two or three days. Anatomically, the veins are found distended with blood, while groups of lymphoid cells are present in the interstitial tissue, without inflammatory changes. Blood is extravasated between the seminiferous tubules, and there are deposits of pigment. The epithelium of the tubules is cloudy and fatty. In the further course of events the testicle undergoes atrophy. In most cases no cause for the condition can be determined, but from the youth of the patients, the thinness of the walls of the veins would seem to be a predisposing factor. An infective influence is not to be entirely excluded. The treatment consists at first in active antiphlogosis. If the symptoms fail to yield, skin, vaginal tunic, and testicle should be incised down to the body of Highmore, and the gangrenous tissues be permitted to be thrown off. Only in case of profuse suppuration should the testicle be entirely removed.

Foreign Body in the Ear for Twenty-one Years.—PRITCHARD (*Lancet*, No. 3641, p. 1383) has reported the case of a married woman suffering from acute follicular tonsillitis, which readily yielded to treatment. Interrogated as to whether she had had any ear-trouble previously, the woman stated that for a number of years she had suffered from neuralgic pain and a sensation of a foreign body in the auditory canal. It was recalled that during childhood the woman had placed a pea in the ear, which was not removed. The application of warm oil and syringing with warm water removed considerable wax and disclosed the presence of a dark, roundish body adhering to the posterior wall of the canal. Syringing failing to remove this body, a fine silver-wire snare was carefully passed beyond it and the body was dislodged and on examination proved to be an ordinary pea. It was considerably shrivelled and in part covered with epidermis.

A New Method of Auscultatory Percussion.—SMITH (*Medical Record*, June 24, 1893, p. 777) reports the employment of a new form of auscultatory percussion, by means of which he believes shades of differential dulness may sometimes be detected that would otherwise escape observation. The small extremity of the binaural stethoscope is held between the patient's teeth while the lips are closed around it and the nostrils are compressed by the fingers. The results obtained do not differ in kind from those obtained by percussion in the ordinary way, but the intensity is greater.

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SATURDAY, AUGUST 5, 1893.

THE DISORGANIZATION OF THE AMERICAN MEDICAL PROFESSION.

"Did you attend the meeting of the American Medical Association at Milwaukee?" was asked of a physician a few days ago. "O, no! I do not train with that sort of a crowd," was the unexpected reply. This attitude of mind was hopeless, and the suggested Dundreary proverb concerning the kind of a bird that "flocks all alone by himself," was useless.

But this attitude of mind is one that two bodies have to look to a bit. The medical profession, as a whole, will sooner or later give it a sharp answer, and, whether this answer be spontaneous or compelled, another somewhat important body, called "the body politic," will have a very decisive word to say about it.

The disease is evident; it is a rebellion of the members against the whole body; it is an exaggeration of individualism, a democracy so rampant that factionalism has become easier than union. We are, it is true, in the full-tide of political democracy, but we have not yet reached socialism or anarchy. We still abide politically in representative government and (at least since 1861) in the rule of the majority. But in medicine we seem to think no organization necessary, and that professional individualism,

factionalism, or anarchy is our natural state. There is even a touch of pride in flocking by oneself or with a half-dozen like-minded self-flatterers.

Have we then no common duty, such a duty as can only be performed by the profession acting and speaking as a whole? If not, then of course there is no logical or valid answer to individualism. But to ask the question is to answer it with a ringing "Yes, we have such duties, and we are disloyal if we say we have not!"

But viewed simply as a professional matter, a little family affair with which, *pro tempore*, it may be admitted the lay world has no concern, what about this indifference to organization and this refusal of corporate duty? It is plainly a question of self *vs.* the medical profession; it is, frankly, nothing more than professional rebellion.

It is smiled over and talked about as an open secret that the formation of so many select and membership-limited societies of specialists has been motived by other reasons than dissatisfaction with the American Medical Association. It is said that they are not to be viewed as corporate protests against the "politics" and "the methods" of that or indeed of any possible general organization, but that they are attempts to divide the consultation practice of the country among the limited number of fortunate members. This may be untrue. It is not for us to decide, but the action certainly permits the suspicion to arise, and the way to allay it is not to continue the contemptuous indifference to, and utter neglect of, some common organization.

It may also be noted that there is no evil more evident, no evil more universally deplored by rational medicine than the evil of medical sectarianism. But what bouffe logic, to complain of the homeopathic, eclectic, or Kneipe crank and sectarian, while scorning general organization and manufacturing factions and special limited societies, even within the regular profession. So long as the profession does not shake itself together and present to the public the spectacle of a united body of men agreed upon all the essentials of medical practice, just so long will that profession not command the respect of the world, and just so long will it be unable to accomplish its proper and destined work. To-day we are powerless to cause medical schools to be conducted for the sake of medicine instead of for the sake of the proprietors and professors; we are powerless to crush the hideous "patent" and proprietary medicine business; powerless to get "medical" news-

papers conducted for medicine instead of for the advertiser; powerless to bring about the nationalization of health; powerless to prevent the needless and useless one-fourth of all deaths and the one-half or more of the sickness that is such an enormous tax on the commonwealth and crippler of all social energy. And why this powerlessness? Simply because of medical sectarianism, professional disorganization, and anarchy.

There are numberless reasons that might be brought against the individualist and his neglect of professional organization. Sooner or later the common sense, or the sense that should be common, of the mass of physicians will recognize the fact that there is or must be such a thing as professional interests and duties, and that members of the profession must be held to an acknowledgment of them. Then will there be a quick ending of the factionalist and egotist. In every civilized country of Europe there is such organization and accountability. Even barbarous Russia regulates and stigmatizes the trade in patent medicine that free and civilized America sends to her in shiploads!

It was the witty saying of a wise man that democracy is only making pi, and certainly medical democracy is the absurdest of pi-making. Professional self-interest and the public interest stare at us from every aspect of life and work. There is no intelligence or corporate strength in this disunion. It is our duty to unite and to encourage *esprit de corps* by organization. Factionalism is an *esprit de corps*, if the bad pun may be pardoned, and professional rebellion must be stigmatized, if not punished.

Considered simply as the largest medical organization in the United States, the American Medical Association offers the most suitable and the most probable gravitational center to which must gather the subordinate elements and groups. If not to your liking, it is not very liable to become more so by your non-membership. Parties, whether political or medical, are not mended by letting them alone. In every large organization thousands of minor differences and individual preferences must be sacrificed. The need of some organization is so great that longer to delay it is vanity and selfishness and whimsicality. There is slowly arising a general medical consciousness—unseen or scorned by the politician and anarchist—a spirit of centralization, a recognition of the duty of unity, nay, of the self-interest of unity. It will be well to reckon with this spirit, because its rule is as inevitable as

its coming. There must be an end of this “flocking all by oneself,” this cliqueism, coterie-forming, and limitless pi-making. This attitude of everlasting criticism by the disgruntled is silly and pig-headed. An aroused profession must sweep it aside, or else an aroused public sentiment will sweep an unworthy profession aside. There is even now a plain intimation of such a public condemnation of us in the fact that preventive medicine—the coming greater part of all medicine—is willy-nilly being taken out of the hands of physicians, and is being cultivated by the non-medical scientist. If this shall in fact and completely come about, it will be our own fault, a plain case of *felo de se*.

The American medical profession has one pre-eminent and imperative duty before it, to which all other interests and duties must be sacrificed, and that is the duty to organize.

BUTTER.

A CIRCULAR, entitled “Nostrums for Butter-making,” recently issued by the U. S. Department of Agriculture, gives an interesting account of attempts to deceive the public by the sale of preparations purporting to increase the yield of butter from a given amount of milk. The officers of the department express, naturally, some dissatisfaction at the readiness with which farmers have taken up with the fraud, not only because it must appear that the use of any such preparation is dishonest; but, with the information that has been liberally afforded by the bulletins of the department, any intelligent agriculturist can learn that no more butter-fat can be obtained from milk than exists in it. It appears from the circular that most of these preparations are arrant humbugs. One form, widely advertised under the name of “black pepsin,” varies in composition, some samples consisting of common salt, annatto, and a little rennet, while others are mixtures of pepsin and sugar.

It is worthy of note that in the extended discussion of food-adulteration of late years, butter has not received much attention from sanitarians. Milk, alcoholic beverages, and baking powders have caused the outlay of much breath and printers’ ink, but even the enormous development of the oleomargarin industry has been met by opposition from commercial rather than from sanitary interests. The ears of health officers have remained dull to farmers’ recitals of the evils that attend the use of

substitute butter. It is true that most repressive enactments relating to this subject have either in the title or preamble assumed an intention to protect the public health, but this is merely a legislative way of putting things to avoid conflicts with court-decisions.

This indifference need not be a matter for alarm, for while oleomargarin is not a perfect substitute for butter, and may never entirely replace it, it is, as now manufactured, apparently not unwholesome, and, therefore, not an object of sanitary restriction.

A more serious matter is the skilful adulteration of genuine butter, by the use of some of the "nostrums" noted, or possibly by methods not yet known to the authorities. The result is the production of a commercial article containing an excess of water, sometimes over 40 per cent., while good butter will not contain over 10. Such an article is spongy, and becomes rancid readily. It is, of course, a great fraud on the consumer. Butter of this kind is often sold in Philadelphia, especially among the poorer population. Indeed, there seems to be an organized system for its manufacture and sale. It will, doubtless, be difficult to stop such a practice. The product cannot be considered unwholesome, except by an extreme construction of the term, and as water is a normal ingredient of commercial butter, the issue must be made on the percentage present. No legal standard of percentage exists in this State, and it might be very difficult to set one up in an individual case to the satisfaction of a jury. It is, however, of some interest to know that systematic fraud is occurring frequently with regard to an extensive and important food-product.

If efforts are made to secure a general law against food adulteration at the next Legislature, it will be well for those interested to bear in mind that the substitution by oleomargarin is not the only fraud that is practised by the purveyor of butter, and to provide for a minimum percentage of permissible fat.

ON A CERTAIN LACK OF HUMOR IN PHYSICIANS.

PHYSICIANS may undoubtedly be pardoned for it, but they surely have a natural or acquired deficiency of the sense of humor. Their right to pardon comes from the tremendous seriousness of their daily work; they may not even smile at the unconscious jokes of their patients, except after they and their "guitars

in their noses" have left the office. "It's awful to have the nerves, doctor," and it's awful likewise *not* to have 'em. Some years ago a medical humorist began the compilation of an encyclopedia of medical wit and humor and solicited contributions from all physicians. The contributions came in huge packages, but they were neither witty nor humorous—they were simply—not to be printed. The would-be author-editor never smiled afterward. It was a sad case of pseudo-cyesis.

Another proof of this thesis has lately come to our notice. Remarking, with much despondency of heart, that physicians as well as "the vulgar herd" like to handle secret proprietary remedies and believe in outrageous claims and certificates of impossible cures, a humorist spent considerable money in advertising in "reputable medical journals" a series of preparations, trade-marked and patented, of the most astonishing qualities and powers. Certificates from pompous magnates, with titles of surpassing length as tails to their names, were appended; and the whole affair was set forth with the customary effrontery in the remarkable scientific jargon of the professional advertisement-writer. The actual advertisements are before us as we write.

For the anti-vaccinationists and the aristocratic, "Jennerine" possessed a charm; it was of spontaneous production in a blooded cow of long pedigree, but for many generations had been carried through the human royal family of England, acquiring thereby great intensity and nobility. Transmission of the virus and inoculation could also be effected by telegraph "over many miles of wire."

Of "Pasteurine," the universal microbicide, the formula was published, though the name was trademarked, and "other dealers are warned, etc." And this is the formula:

Nitrogen, one volume.
Carbonic acid gas, pure anhydrous, two volumes.
Permanganate of potash, two parts by weight.
Pure oxygen, without admixture, one volume.
Pure carbon in crystalline form, one part by weight.

"Consumptine" was guaranteed a sure cure for consumption. As regards Croupine, the physician required especial teaching and drilling in its application, to prevent the digestion of the membrane of the patient's throat while being swallowed. Its price was \$7.50 per ounce, "very reasonable in consideration of the results obtained." "Dyspepsine" and "Cancerine" were guaranteed of absolutely

unfailing power. "Ostrichine" enabled one to eat mince pie and railroad sandwiches with impunity. ("We raise our own ostriches.")

"Brainerine" needed only its name to recommend it. "Brains are scarce just now," says the advertisement, "and for this reason our supply, for a few years, will be limited. Physicians requiring this article for their personal needs or those of their patients, will please apply with subscription at once."

And now for the promised proof of professional lack of humor: To the address of the "Nineteenth Century Therapeutical Company," from every part of the United States, came thousands of serious letters from physicians—literally thousands—requesting samples, ordering supplies, and making inquiries as to the applicability of these remedies to ailments described in detail!

EDITORIAL COMMENTS.

The Supplying of Germ-free Milk.—It is one of the strange things that the first attempt to supply under scientific supervision a clean, pure milk, free from germs, is yet to be made. That a food so universally used, so necessary, and so easily becoming not only unhealthful, but the very carrier of multiform disease, should be left to the carelessness and cupidity of uneducated men, is a fact almost beyond belief. The cows and the men who milk them are almost always filthy, and are often diseased. At Hightstown, N. J., for example, eighteen cases of diphtheria were recently traced to one dairy, where a boy with the disease was employed to wash the milk-cans. The germs of typhoid fever, of scarlet fever, and of tuberculosis are, as is well known, carried in milk.

At Caldwell, N. J., important experiments are about to be made to prove that milk may be produced under conditions that will guarantee its purity. The experiments are to be carried out under the supervision of a medical commission, with which are associated chemists, bacteriologists, and veterinary surgeons. All requirements may be carried out by a farmer of ordinary intelligence, with medical and veterinary supervision. It is estimated that certified milk can be delivered for twelve cents a quart.

The plan outlined includes three general requirements:

1. That physicians give their practical support to an effort conducted by a commission selected from their own number, who shall endeavor to bring to the city a supply of milk, produced under such regulations that purity shall be assured.

2. That approved and trustworthy dairymen, possessing honor, financial ability, and dairy-facilities, shall be induced by reason of promised medical support and the increased price of their milk, to conduct their dairies, collect and handle their products, in conformity with a code of requirements made by the aforesaid medical commission, and imposed by them in due legal form.

The contract shall include the sureties for its fulfilment; the location and character of the land; the construction of buildings; the water-supply; the surroundings; the health and breed of the

dairy-stock; the housing and care of the cows; the feeding; the collection and handling of the milk; its cooling and preparation for shipment; the bottling and transportation, together with the minor details of delivery.

3. That the commission shall carry on its work without pecuniary compensation. Its duties shall be: First, to establish correct clinical standards of purity for cows' milk. Second, to be responsible for a periodic and personal inspection of the dairy or dairies under its patronage. Third, to provide for bi-monthly expert examinations of the dairy stock by a competent and approved veterinarian. The milk produced shall be subjected to chemical analysis and to bacteriologic tests, made under the direction of the commission at such times as in its judgment are desirable.

The veterinary surgeon, chemist, and bacteriologist shall be selected by the commission, and when so requested, either periodically or otherwise, they shall render their reports in writing. The expense of all examinations should be defrayed by the dairyman, as he is the only party gaining a pecuniary advantage. These expert reports, although designed for certificates, may also be used for the information of the medical fraternity in the localities where the milk is sold.

After receiving these reports, the commission should send a certified copy of the same to the owner or agents of the dairy or dairies under its supervision. Duplicate printed copies, bearing the signatures of the experts and the names of the commission, should be issued by the dairymen, at such times as may be agreed upon, and the circulation should, for obvious reasons, be limited to physicians.

The milk thus produced should be known as certified milk; should be sealed in separate quart-containers, and bear the name of the producer, together with the date of milking. The milk, being designed especially for clinical purposes, should be subject to the following restrictions in its sale, namely, that when at any time the demand is greater than the supply, and the milk is required by a physician, either for infant-feeding or the diet of the sick, it should be agreed that the physician or his patient shall be a preferred purchaser.

The agreement required of dairymen entering into contract binds them to the conduct of dairies in conformity with specified requirements, including the costs of chemic and bacteriologic examinations; inspection at least bi-monthly; subjects the location of lands, the construction of buildings, the water-supply and surroundings to the supervision of the commission. It provides conditions for the selection of the dairy-stock, excluding from the herd used for producing certified milk "any animal bred through close consanguinity; any animal that was not, as a heifer, kept sterile during its first twenty-seven months; any phenomenal milker, unless glandular disease or tubercle has first been excluded by a competent observer." The housing and care of stock, feeding, collection and handling of milk, preparation for shipment, the bottling, transportation, and delivery are all governed by rules specified in the contract, the violation of which is subject to penalty.

The commission has freed itself from all chance of self-interest in any of the experiments to be made. Members thereof are forbidden to act as experts, or being in any way interested in the matter, other than for professional purposes.

Adaptation of Cow's Milk.—Soxhlet has recently issued a pamphlet entitled *The Chemical Differences Between Cow's Milk and Human Milk, and the Means of Equalizing Them.* The author, although perhaps not known to many clinicians, is an eminent authority in analytic chemistry, and, as translations and abstracts of his

pamphlet are beginning to appear in the journals, it will be well to note that there are some errors in it. Soxhlet proposed to make cow's milk of the same dietetic value for infants as mother's milk, by adding half the volume of a 12.3 per cent. solution of milk-sugar. This gives, he states, a percentage of casein equal to that of human milk, while the milk-sugar equals nearly 10 per cent., the excess over that usually in human milk being intended to compensate for the reduction of fat by dilution. The author states, upon the authority of another investigator, that milk-sugar may replace fat in the proportion of 24 to 1. As a matter of fact, the figures given are erroneous. To obtain a solution containing 9.4 per cent. of milk-sugar it will be necessary to add a half-volume of a solution containing over 19 per cent.—a solution difficult to prepare. Soxhlet's formula will only give about 7.5 per cent. of sugar, while the fat will be reduced considerably. He further bases his formula upon the view that cow's milk is of constant composition, a view that is clearly untenable in the light of thousands of analyses now on record. The employment of cream for preparing imitation human milk is deprecated on the ground that there is no ready method of determining the amount of fat, a position which is also untenable, as rapid and accurate processes available to unskilled workers are now known. As an essay by so distinguished an authority will be likely to receive unquestioned acceptance by many, it seems necessary to note its defects.

The Etiology of Asiatic Cholera.—The doctrine of the specificity of the comma-bacillus in the etiology of cholera has been especially opposed by the Munich school. At first another organism (the bacillus neapolitanus of Emmerich and Buchner) was credited with being the causative factor. When the correctness of this claim was disproved, great importance was attached to local and individual conditions, the comma-bacillus being conceded only an incidental relation. Now that it is admitted that there can be no cholera without the comma-bacillus, the attempt is being made to prove that the symptoms are not dependent upon influences that are peculiar to the comma-bacillus. EMMERICH and TSUBOI (*Münchener medicin. Wochenschr.*, Nos. 25 and 26, 1893) endeavor to demonstrate that the clinical picture of Asiatic cholera is the result of an intoxication by nitrites generated by the cholera-bacilli. We are quite willing to admit that nitrite-intoxication may be a factor in the production of the symptoms, but we are scarcely ready to believe that these are solely dependent upon this influence. We have not a little yet to learn concerning the etiology of cholera, but at this stage it would be exceedingly difficult to ignore, not to say disprove, the specific influence of the comma-bacillus, however complex this relation may be.

The Iowa State Board of Medical Examiners is determined to break up sham medical colleges and sham medical education if possible. No medical college will hereafter be recognized by the Board as in good standing that does not require as a condition of graduation "four graded courses of lectures of not less than six months each—no two of which said courses being in the same calendar year." Colleges not coming up to the minimum requirements (preliminary examinations, four years'

study, attendance at quizzes, examinations, etc.) are notified that the Board certificates will not be granted to their graduates. The Eclectic College is making a fight against the ruling in the courts; but as an indirect result of the controversy it is found that it has no charter right to confer a degree, and that according to its charter it is only authorized to organize and teach "for pecuniary profit."

REVIEWS.

Saint Bartholomew's Hospital Reports. Edited by W. S. CHURCH, M.D., and W. J. WALSHAM, F.R.C.S. Vol. XXVIII. With Statistical Tables of the Patients under Treatment in the Wards of St. Bartholomew's Hospital during 1891. By the Medical Registrar, J. A. ORMEROD (Oxon.), F.R.C.P., and the Surgical Registrars, ANTHONY A. BOWLBY, F.R.C.S., and C. B. LOCKWOOD, F.R.C.S. Pp. 370. London: Smith, Elder & Co., 1892.

THIS report contains thirty papers, of varying degrees of interest, merit, and originality. We can only make reference to some of the more important matters. Mr. Howard Marsh points out the exceeding difficulty sometimes encountered in the differential diagnosis of new-growths and inflammatory enlargements of bone. Mr. Harrison Cripps, in speaking of hernia as a complication of abdominal incision, says that "One of the causes of this is allowing the patient to get up too soon without adequate support to the abdomen. All scar-tissue, in its earlier days, is comparatively soft, and will slowly yield to anything like constant pressure; on the other hand, after a while, it becomes of the firmest and least yielding structures in the body. A carefully made abdominal belt will be sufficient protection after the first few months; but for the first three months, if the incision has been of any length, it is most desirable that the patient should apply three or four turns of thin roller bandage, five inches wide, around the abdomen firmly, on rising in the morning. The patient should be enjoined to keep the recumbent posture as much as possible, and avoid any exercise that causes undue action of the abdominal muscles." Mr. Arthur Maude contributes a note on the application of Leiter's tubes to the precordium in the treatment of exophthalmic goiter. He uses a large-sized rectangular coil, at first for twenty or thirty minutes, morning and evening, the time of application being gradually increased until the coil is worn for some hours daily. Many months are necessary for anything like permanent improvement. Nephritis is a possible danger from the treatment, which should not be employed if albuminuria be present. In all cases the urine should be periodically examined. Dr. Andrew Haig makes the proposition that the contraction of the vessels in Raynaud's disease is a result of the presence of uric acid in the circulation. Dr. T. Clay Shawe argues that in certain cases of insanity the performance of trephining may be a justifiable procedure, and reports an illustrative case. Dr. Vincent D. Harris records an analysis of forty-one cases of intrathoracic growths in St. Bartholomew's Hospital, from 1882-91, and also the epitomized notes of nineteen cases of a similar kind in the City of London Hospital for Diseases of the Chest, Victoria Park, during ten

years. Mr. W. McAdam Eccles makes an interesting analysis of twenty-eight cases of intussusception. Nine cases of intestinal obstruction are treated of by Mr. F. W. Tuncliffe, to which are added some remarks by Mr. Bruce Clarke. Dr. J. A. Ormerod reports four cases of acute ascending paralysis. Mr. Arthur J. Hall reports a case of hepatic cirrhosis in a girl eleven years old. Mr. E. Cautley details a bacteriologic study of the etiology of croupous pneumonia. He raises the question whether the presence of microorganisms in the lung in pneumonia may not in most cases be regarded as a sequel, and concludes that if the disease is dependent upon the presence of microorganisms, no one single species is present in every case. Dr. G. G. Morrice calls attention to the occurrence of suppression of urine in the course of diphtheria. Mr. F. E. Batten reports three cases of "progressive muscular atrophy associated with loss of sensation to heat and cold," in one of which post-mortem examination disclosed the presence of a cavity occupying the central canal of the spinal cord. Dr. H. Lewis Jones contributes interesting notes from the Electrical Department, in which he considers the management of the apparatus and the treatment of the cases. Sir Dyce Duckworth and Dr. H. H. Tooth report two cases of general spastic rigidity of unusual type, in which the explanation is ventured of a primary meningitis, followed by inflammation of the cortex and subsequent sclerosis. The volume concludes with a descriptive list, specimens added to the museum during the year 1892, and statistical tables for the year 1891.

A TEXT-BOOK OF THE THEORY AND PRACTICE OF MEDICINE. BY AMERICAN TEACHERS. Edited by WILLIAM PEPPER, M.D., LL.D., Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania. In two volumes. Illustrated. Philadelphia: W. B. Saunders, 1893.

THE list of authors of this latest addition to coöperative medical literature is certainly a good one. In the two volumes will be contributions by J. S. Billings, Francis Delafield, R. H. Fitz, James W. Holland, E. G. Janeaway, Henry M. Lyman, William Osler, William Pepper, W. Gilman Thompson, W. H. Welch, James T. Whittaker, James C. Wilson, and Horatio C. Wood; in addition to whom, the editor acknowledges the assistance of Dr. F. A. Packard.

The work is likely to be well received, its teachings being those of the advanced schools of the day. All of the articles are well written, though some are better than others, especially in the matter of treatment. In this respect, we confess to much disappointment in the article on "Influenza" by the editor. While caution is suggested in the use of antipyretic drugs, such use in many cases is not only condoned but even advised—very bad advice, no matter how eminent the adviser. The two formulae given, one for a pill of quinine, opium, digitalis, squill, and licorice; the other for a solution of morphine, quinine, and strychnine in phosphoric acid, glycerin, and water, are excellent examples of a polypharmacy that, in this disease above all others, should be avoided. The value of strychnine, ammonium preparations, and the terebinthines is recognized, but hardly sufficiently emphasized. Salicin and its derivatives, and sodium

benzoate, probably the most useful of all drugs except strychnine, are not mentioned; neither is the importance of securing free diuresis. It is true that the experienced practitioner does not need to be urged to look after all the secretions, but the student who will use this text-book does. We must also differ from the author as to any danger of increasing catarrhal complications by "hydrotherapy." If, however, he means to say that the cold bath is unnecessary and would in many cases be dangerous by abstracting necessary heat, we heartily agree with him. Indeed, we believe that part of the evil results of the coal-tar products is due to their depression of temperature.

The article on "Typhoid Fever," also by the editor, is excellent throughout. It is indeed one of the best condensed studies of the subject in the English language. We might differ from the author as to the utility of silver nitrate or the period at which alcohol is to be used. The recommendation of hydrotherapy is judicious, but we regret to see antipyrin given in never so small dosage. We are glad to see turpentine intelligently recommended.

Among the best articles are those on "Mental and Nervous Diseases," by H. C. Wood; while Osler writes of "Diseases of the Brain, the Muscles, and the Nerves," in his own rare style of brief inclusiveness. Billings's article on "Hygiene" is all that it ought to be, and its prominence in a text-book of practice is a bit of brilliant editorial work.

Whittaker contributes a series of articles on various acute infectious and parasitic diseases, and Thompson treats of syphilis, malaria, diphtheria, cholera, yellow fever. Detailed review is impracticable, but the articles as a whole are good, and can be confidently referred to by student and practitioner.

A TEXT-BOOK OF MEDICINE FOR STUDENTS AND PRACTITIONERS. By DR. ADOLF STRÜMPPELL. Second American Edition, Translated by permission from the Second and Third and Thoroughly Revised from the Sixth German Edition, by HERMAN F. VICKERY, A.B., M.D., and PHILLIP COOMBS KNAPP, A.M., M.D., with Editorial Notes by FREDERICK C. SHATTUCK, A.M., M.D. With 100 illustrations. New York: D. Appleton & Co., 1893.

CONCISE, full, and accurate; permeated with knowledge both theoretic and practical, Strümppell's text-book has won for itself a place in the front rank; and the additions made by the American editors enhance its value for American students and practitioners. We can select but a few points for comment. Accepting the current theories of infection, the author is by no means blind to possibilities outside of the prevailing doctrine. Thus, in discussing the etiology of enteric fever, while attributing the origin of the disease in every instance to invasion by typhoid-bacilli, he upholds the view of multiplicity of means of conveyance; and admits that individual predisposition is likewise necessary to the development of the disease. Attention is directed to the frequency of inhalation-pneumonia among the complications of enteric fever; but the existence of a croupous pneumonia dependent upon the typhoid-poison is likewise recognized; and due prominence is given to cases of "pneumo-typhoid" in which the early symptoms suggest pneumonia rather than enteric fever.

The treatment by cool bathing is recommended. We are glad to see hydrotherapy likewise advised in scarlet fever. The use of hydrogen dioxid for the throat and nose is not mentioned; yet we have come to look upon it as an essential element in the treatment not only of scarlatina but of all other diseases presenting similar local conditions. At the present time we turn with some interest to the chapter upon Cholera. The author warmly advocates opium, not only in the preliminary diarrhea, but later. Injection of hot saline solutions into the veins, enemas of tannin, and other measures of the kind are merely mentioned without expression of opinion. In the diagnosis of digestive disorders the author attaches great importance to examination of the gastric contents. In the treatment of perityphlitis opium is advised, and surgical means are not advocated by the author unless there is evident abscess. The editor, however, takes a more advanced view as to timely operation in appendicitis. There is a succinct chapter on Biliary Cirrhosis, but little help could be obtained in a doubtful case from the remarks on diagnosis. Even with the editor's additions, the remarks on pancreatic disease are more unsatisfactory than the obscurity of the subject warrants. The section upon Nervous Diseases is one of the best and most complete presentations of the subject for the general practitioner. The specialist may note omissions and differ in part from the views advanced. As an evidence of careful clinical study, we are glad to see that in the article on Exophthalmic Goiter the occasional association of angina pectoris and of spontaneous gangrene is noted. "Insufficiency of convergence" is given due prominence among ocular signs.

To conclude, we can only speak of the work of the author and of the translators and editor in the highest terms, and congratulate the English-reading profession upon the appreciation thereof which has led to the issue of a new edition in English.

ALCOHOLISM AND ITS TREATMENT. BY J. E. USHER, M.D., Fellow of the Royal Geographical Society of London; formerly Surgeon Supt. and Medical Officer of Health to the Queensland Government. New York: G. P. Putnam's Sons. London: Baillière, Tindall & Cox, 1892.

THIS little work is evidently an effort on the part of its author to fill a place long vacant on the shelf of the physician's library. He very aptly starts out by stating: "Generalizing has been indulged in by a host of observers, but in very few instances can we find evidence in detail of the manifold changes existing in chronically diseased conditions."

It is very plain that there has existed a pretty general failure to recognize inebriety as a disease whose etiology, development, pathology, and treatment are as worthy of and as imperatively demand the most studious and methodical observation and treatment as have been given to typhoid fever, croupous pneumonia, or diphtheria. This lack of attention by the neurologist, alienist, and general practitioner has left the medical library almost barren in practical literature upon alcoholism. That which is available suffers from the fault of either being too general to be useful or too highly theoretic and scientific to be of any practical value to the general practitioner. Thus an inviting loophole has

been left open, through which have crept unprincipled "Quacks," "Charlatans," and "Pretenders," to prey upon a most unfortunately afflicted portion of humanity.

Dr. Usher has energetically reopened this field in a style of English that is most interesting and impressive, and gives some valuable suggestions to those who have been disposed to look upon inebriety as more frequently a vice demanding the pleading of the pulpit than the ministrations of the physician. He disapproves of the indiscriminate, nay even the free giving of alcohol to children. "Keelyism" is unqualifiedly condemned as irregular and unworthy of even the slightest endorsement by any regular physician. The work deals with alcoholism in its medico-legal aspect, as well as in its clinical manifestations, with treatment and so forth, and is largely a compilation from well-known writers and authorities.

One is singularly impressed by the fact that in treating the legal phase of the subject the author quotes chiefly English jurists, but when he takes up the medical side of the question he quotes American authorities almost exclusively, thus leaving the reader to believe that in Great Britain inebriety is treated by courts of law, while in America it is treated by physicians.

A HANDBOOK OF PATHOLOGICAL ANATOMY AND HISTOLOGY, WITH AN INTRODUCTORY SECTION ON POST-MORTEM EXAMINATIONS AND METHODS OF PRESERVING AND EXAMINING DISEASED TISSUES. By FRANCIS DELAFIELD, M.D., LL.D., and T. MITCHELL PRUDDEN, M.D. New York: Wm. Wood & Co., 1892.

A BOOK that has reached a fourth edition in a comparatively short time needs no extended review, especially when, as in the present instance, internal evidence manifests careful revision, bringing the subject-matter fully up to recent knowledge.

The preliminary chapters on post-mortem examinations and the examination of diseased tissues are essentially practical and useful, particularly the former. The discussion of pathologic technique is very brief, though, perhaps, sufficient for the uses of the general reader. Those desiring further knowledge will avail themselves of special treatises.

The body of the work is devoted to the discussion of general pathology, including the consideration of micro-organisms and the various infections, and of the special pathology of the individual organs and tissues. There is also added a section "on the lesions found in general diseases, in poisoning, and in violent deaths," which, in a rigidly scientific treatise, would be unnecessary, from the fact that the contents must be merely a repetition of matter treated of in various places in the consideration of the different organs and tissues; but the practical usefulness of such summaries will commend them to the general practitioner. This practical or, if we may so term it, clinico-pathologic character of the book is a conspicuous and commendable feature throughout. We note, with regret, the absence of all reference to the pathology of the nasal chambers, the importance of which is commonly overlooked by the general medical man. Throughout the book the evidences of the individual and careful work of the authors is conspicuous,

especially in the chapters devoted to the lungs and kidneys, and, though we may not be disposed to agree on minor points, the general exposition of the pathology of the various organs seems accurate and reliable. The illustrations are all original and constitute not the least attractive feature of the work.

CLINICAL LECTURES ON ABDOMINAL HERNIA, CHIEFLY IN RELATION TO TREATMENT, INCLUDING THE RADICAL CURE. By WILLIAM H. BENNETT, F.R.C.S., Surgeon to St. George's Hospital (London), etc. With twelve diagrams. Small 8vo, pp. 225. London : Longmans, Green & Co., 1893.

THIS is a book of great practical value, on a subject which can never lose its interest to the surgeon. Of the eleven lectures contained in it, three were originally published in the pages of the *Lancet*, and many who have read them there will no doubt be glad to possess them in this more permanent form, with the additional material now presented.

The topics discussed are: The deceptive nature of the symptoms of strangulation in hernia ; the occurrence of such symptoms in cases in which the hernial sac apparently contains neither omentum nor bowel ; some peculiarities met with in the arrangement and shape of hernial sacs ; some of the difficulties and dangers of attempts at reduction of hernia by manipulation ; the management of damaged bowel in strangulated hernia ; median abdominal section in the treatment of hernia ; certain unfavorable symptoms occurring after the reduction of strangulated hernia, whether with or without operation ; the radical cure of hernia. All of these matters are discussed by Mr. Bennett in a clear and forcible style, and, with the exception of the last named, are illustrated by graphically-told clinical histories.

Did space permit, we should gladly quote some passages from these pregnant pages. In regard to treatment, Mr. Bennett seems to us to be in the best sense conservative. For example, while he does not absolutely condemn the resection of gangrenous intestine in strangulated hernia, he takes the ground that "the coexistence of a condition of the gut hopeless enough to require resection, with a state of the patient which is good enough to justify the operation, must be very rare." We may also express our entire agreement with his views as to median abdominal section in the operative treatment of hernia. His statement of the objections to this procedure can hardly be controverted with success, even by its brilliant proposer and advocate.

This book does not pretend to be a treatise on hernia, but simply deals with points suggested by cases which presented themselves in the wards of one of the great London hospitals. We feel assured that no practical surgeon, giving it the careful reading which it deserves, will fail to find in it both interest and instruction. Its merits will be best appreciated by those whose own experience has been the widest.

SYSTEM OF DISEASES OF THE EAR, NOSE, AND THROAT. Edited by CHAS. H. BURNETT, A.M., M.D. Vol. I. 8vo, pp. 789. Philadelphia : J. B. Lippincott Co., 1893.

THIS work will be completed in two volumes. The first volume, dealing with diseases of the ear, nose, and

naso-pharynx, is, on the whole, a creditable addition to literature. Naturally the various chapters by different authors are unequal, but all are meritorious. In many of them we find statements justly open to debate, such, for example, as the mistaken dicta concerning the importance and the methods of treatment of adenoid vegetations, which mar an otherwise excellent chapter by Dr. Seiss; but detailed criticism is impracticable. In this connection, however, we would emphasize the importance of doing operations in the naso-pharynx under guidance of rhinoscopy and not of touch. Perhaps the best single chapter is that by Dr. Major, of Montreal, on Lupus, Syphilis, Tuberculosis, Glanders, and Diphtheria of the Nose and Naso-pharynx. John N. Mackenzie, of Baltimore, contributes an admirable study of atrophic rhinitis. Seiler, of Philadelphia, attempts to establish a difference between grip and influenza. The article shows careful observation of cases, but inadequate critical grasp. It is, however, a useful addition to knowledge.

The editor contributes an article on "Chronic Purulent Otitis Media," marked by his well-known clearness of expression, richness of experience, and soundness of judgment. Other specially valuable articles are those by Dalby upon "Foreign Bodies and Osseous Growths in the External Auditory Canal;" by Bacon on "Diseases and Injuries of the Membrana Tympani;" by Colles on "The Middle Ear in Renal, Malarial, Syphilitic, Gouty, Rheumatic, and Dental Diseases;" by Jack on "Removal of the Stapes;" by Blake on "Mastoid Disease;" by Oliver on "Ocular Lesions in Aural Diseases;" and by MacCoy on the "Anatomy and Physiology of the Nose and Naso-pharynx."

This being—fortunately or otherwise—the era of systems and coöperative authorship, we predict for Burnett's system the large sale that it deserves.

TREATISE ON THE DISEASES OF WOMEN, FOR THE USE OF STUDENTS AND PRACTITIONERS. By ALEXANDER J. C. SKENE, M.D., Professor of Gynecology in the Long Island College Hospital, etc. Second edition, revised and enlarged, with 251 engravings and 9 plates in color. Pp. 968. New York : D. Appleton & Co., 1892.

In the preface of the first edition of this work the author states : "This work was written for the purpose of bringing together the fully matured and essential facts in the science and art of gynecology, so arranged as to meet the requirements of the student of medicine, and be convenient to the practitioner for reference." The demand for a second edition has demonstrated how fully this purpose has been accomplished. The reader cannot fail to commend the conservatism and honesty of the author's opinions, and the care with which the material has been collected and arranged. The second edition contains new chapters on ectopic gestation, diseases and injuries of the ureters, and vesical hernia. The first of these subjects receives in this edition a careful exposition, the want of which was among the few defects of the former edition. The author's conservatism, however, in this very important branch scarcely meets the standard which recent investigations on this subject have demanded. His advocacy of electricity forms too prominent a contrast to the treatment of the surgical aspect of the subject.

The author's work in the positional disorders of the uterus and laceration of the perineum stands preëminent among the contributions to this subject. His discussion of the use of pessaries throws much light upon a subject which has suffered from the want of careful treatment, both pro and con.

The publishers deserve great credit for the illustrations and general style of the work.

THE SURGERY AND SURGICAL ANATOMY OF THE EAR.

By ALBERT H. TUTTLE, M.D., S.B. (Harv.). Pp. 96, with twenty-eight original illustrations. (Physician's Leisure Library.) Detroit: George S. Davis.

THIS little book contains twenty-eight excellent original photogravures of the surgical anatomy of the temporal bone, but a great many inexcusable mistakes in spelling throughout the work. Of the twenty-eight legends beneath the illustrations, eighteen contain repeated mistakes in the spelling of the names of the various parts of the temporal bone, as, for example, "processus cochleariformi" instead of processus cochleariformis, occurs eight times in the legends besides elsewhere in the booklet; in fact, it is not spelled correctly anywhere, so far as we have been able to discover. "Fenestra ovalis" occurs seven times instead of "fenestra ovalis," and "sigmoidei" five times instead of "sigmoideus." An author is not obliged to use Latin names, but when he does he ought to use correct ones.

Proper names are incorrectly spelled in many places; thus "Schrapnell" for Shrapnell (Fig. 23 and table of contents), "Hugierer" for Huguier (Figs. 9 and 10), "Wrenden" (p. 101) for Wreden, and "Boltey" (p. 101) for Botey, in the bibliography. The text includes a fair resumé of modern otology.

AN INTRODUCTION TO THE STUDY OF DISEASES OF THE SKIN. By P. H. PYE-SMITH, M.D., F.R.S., Physician to Guy's Hospital. Pp. 408. Philadelphia: Lea Brothers & Co., 1893.

THIS excellent book, written by one fully conversant with the subject, both in theory and in practice, may be heartily commended to the practitioner, as well as to the student. The subject is handled from the standpoint of modern dermatology, and at the same time teaches that theories should not override facts. Conservatism of this character is always to be commended. The work possesses distinctive originality, which makes it both attractive and valuable. While it is not a large volume, and is modestly styled an "introduction," it really possesses more of intrinsic worth than many other more pretentious books. The views as to pathology and treatment are modern, and are quite up to date. The author is to be congratulated upon having written a sound and useful book.

CHOLERA: ITS CAUSES, SYMPTOMS, PATHOLOGY, AND TREATMENT. By ROBERTS BARTHOLOW, M.D., LL.D., Emeritus Professor of Materia Medica, General Therapeutics, and Hygiene in the Jefferson Medical College, of Philadelphia. 12mo, pp. 127. Philadelphia: Lea Brothers & Co., 1893.

WITHIN the limits of this little volume Dr. Bartholow has made a faithful presentation of the modern concep-

tion of cholera, based upon personal experience in two epidemics and upon a voluminous literature. The subject is considered in five chapters. The first consists of a brief historic introduction, the second deals with the etiology, the third with the symptomatology, the fourth with the pathology and morbid anatomy, and the last with the treatment. The practical character of the work is indicated by the fact that nearly half of the volume is dedicated to a consideration of the subject of treatment, including methods of prevention, quarantine, disinfection, vaccination, and general medication. The appearance of the book is most timely and, coming from such an eminent authority, will commend itself as a safe and useful guide upon a most important subject.

NEWS ITEMS.

The Proposed Bill of the New York Academy of Medicine to Establish a National Health-Bureau.—As reported by the Committee of the Academy, the following is the proposal:

A Bill to establish within the Treasury Department a Bureau of Public Health.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

SECTION 1. That for the purposes of this Act the States and Territories of the United States be and are hereby grouped into districts, to be known as "the sanitary districts of the United States," as follows:

The Northern Sanitary District shall include the States of Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, Wisconsin.

The Northeastern Sanitary District shall include the States of Connecticut, Massachusetts, Maine, New Hampshire, New York, Rhode Island, Vermont.

The Northwestern Sanitary District shall include the States of Idaho, Montana, North Dakota, Oregon, Washington, and the Territory of Alaska.

The Eastern Sanitary District shall include the States of Delaware, Maryland, New Jersey, Pennsylvania, Virginia, West Virginia, and the District of Columbia.

The Western Sanitary District shall include the States of California, Nevada, Utah, and the Territory of Arizona.

The Southern Sanitary District shall include the States of Arkansas, Alabama, Kentucky, Louisiana, Missouri, Mississippi, and Tennessee.

The Southeastern Sanitary District shall include the State of Texas, and the Territories of Indian Territory, New Mexico, and Oklahoma.

The Central Sanitary District shall include the States of Colorado, Kansas, Nebraska, South Dakota, and Wyoming.

THE HEALTH-BUREAU.

SEC. 2. That there shall be established in the Treasury Department, under the direction and supervision of the Secretary thereof, a Bureau of Public Health, to consist of a commission of fifteen, of whom eleven shall be appointed by the President, by and with the advice and consent of the Senate, as follows, viz.: One medical commissioner from each of the "Sanitary Districts of the United States," provided in Section 1 of this Act, and two commissioners at large; the compensation of the appointed commissioners, when actually engaged in

the performance of their duties under this Act, shall be \$10 per diem and reasonable expenses.

The other four members of the commission shall be the Surgeon-General of the Army, the Surgeon-General of the Navy, the Supervising Surgeon-General of the Marine-Hospital Service, and an officer learned in the law, detailed by the Attorney-General from the Department of Justice. These four members shall receive no compensation.

ANNUAL SESSIONS AT WASHINGTON.

SEC. 3. That the members of the commission shall meet at such time and place as may be designated by the Secretary of the Treasury, and organize by the election from their own number of a president who shall be one of the members at large and who shall receive \$5 per diem in addition to the \$10 per diem provided in the last section, when actually engaged in the performance of his duties under this Act.

The commission may appoint a secretary, not one of its number, and fix his salary at a sum not exceeding \$3000 annually. The commission shall thereafter meet annually at Washington, on the first Tuesday of October, and at such other times and places as the president of the commission, with the approval of the Secretary of the Treasury, shall designate.

A COMMITTEE OF HEALTH-SENTINELS.

SEC. 4. That there shall be an Executive Committee of the commission, consisting of its president, the Surgeon-General of the Army, the Surgeon-General of the Navy, and the Supervising Surgeon-General of the Marine-Hospital Service and the officer detailed by the Attorney-General.

The commission shall from time to time prescribe the duties of the Executive Committee, and may make all needful rules and regulations for its own control and for the guidance and discipline of all its officers and employés, and shall establish all rules and regulations for the government of national sanitation in all of its foreign and inter-State relations and special departments in the enforcement of the provisions of this Act.

EXTRAORDINARY CONFERENCES WITH STATES.

SEC. 5. That when, in the opinion of the president of the commission, the interests of the public health would be promoted by a conference of the commission with the State Boards of Health of the several States, or of any sanitary district or districts, he is hereby authorized to invite, with the approval of the Secretary of the Treasury, said State Boards of Health, or such number thereof as he may designate, each to delegate one of its members to meet the commission in conference at such time and place as he may appoint. The president of the commission shall be the president, and the secretary of the commission shall be the secretary of any such conference. The delegate in attendance upon the conference from each State Board of Health shall be entitled to receive reasonable compensation for expenses for a session not exceeding three days, to be paid on vouchers provided by the Secretary of the Treasury.

Medical Practice in Colorado.—The Colorado State Board of Medical Examiners announces that hereafter it will recognize only diplomas from three-year schools as

entitling their holders to license. The courses of lectures must have been of at least twenty weeks each, and have been given in three separate years, and a preliminary examination must have been required. Instruction must have been given in anatomy, chemistry, physiology, pathology, *materia medica* and therapeutics, obstetrics and gynecology, surgery, medical jurisprudence, theory and practice of medicine, and hygiene.

In default of such a diploma the candidate for license must pass an examination in anatomy, chemistry, physiology, pathology, surgery, obstetrics and gynecology, and theory and practice of medicine.

A Meeting and Banquet of Medical Editors attending the Pan-American Medical Congress will be held in Washington, September 4th—the day preceding the assembling of the Congress. Particulars may be obtained from Dr. I. N. Love, 3642 Lindell avenue, St. Louis, who has been appointed Chairman of the Committee of Arrangements.

A Professorship of Ophthalmology at Harvard, it is announced, is to be endowed in the sum of \$25,000 by Dr. Henry W. Williams.

BOOKS AND PAMPHLETS RECEIVED.

Ventilation and Heating. By John S. Billings, A.M., M.D., LL.D., and D.C.L. Oxon. New York: The Engineering Record, 1893.

Human Monstrosities. By Barton Cooke Hirst, M.D., and George A. Piersol, M.D. Part IV. Philadelphia: Lea Brothers & Co., 1893.

A Text-book of the Theory and Practice of Medicine. By American Teachers. Edited by William Pepper, M.D., LL.D. Vol. I. Philadelphia: W. B. Saunders, 1893.

Albuminato of Iron. By W. Blair Stewart, A.M., M.D. Reprinted from the American Therapist, 1893.

The Medical Lore of Shakespeare. By R. Newton Hawley, M.D. Reprinted from the Medical Age, 1892.

Prospectus of the London Post-Graduate Course. Fourth Year. Summer Term, 1893.

A Contribution to the Study of Cerebro-spinal Meningitis. By Wm. Broaddus Pitcher, M.D. Reprinted from the New York Polyclinic, 1893.

Transactions of the American Pediatric Society. Fourth Session. Edited by Wm. Perry Watson, A.M., M.D., Recorder. Vol. IV.

A Remarkable Respiration-record in Infantile Pneumonia. By William A. Edwards, M.D. Reprinted from the Archives of Pediatrics, 1892.

Acute Enlargement of the Thyroid Gland; Angio-neurotic Edema. By William A. Edwards, M.D. Reprinted from the International Medical Magazine, 1892.

Methods of Precision in the Investigation of Disorders of Digestion. By J. H. Kellogg, M.D. Battle Creek, Mich.: Modern Medicine Publishing Co., 1893.

Third Act of the Drama of Syphilis. By Henry A. Robbins, M.D. Reprinted from the Virginia Medical Monthly, 1892.

The City of Philadelphia: its Stockholders and Directors. By Charles Richardson. Prepared for and issued by the Municipal League of Philadelphia, 1893.

The Sympathetic Nerve and Abdominal Bruit in Gynecology: Its Reflexes and Rhythm. By F. Byron Robinson, B.S., M.D. Reprinted from the North American Practitioner, 1892.

The Nine Circles, or the Torture of the Innocent: Being Records of Vivisection, English and Foreign. Compiled by G. M. Rhodes; with Introduction by Edward Berdoe, M.R.C.S. London: Swan, Sonnenschein & Co., 1893.